

# Technical Requirements

to create a site

Prosecutor`s Training Center of Ukraine

# TABLE OF CONTENTS TECHNICAL TASK

nSection 1: TERMS AND DEFINITIONS .....	- 2 -
Section 2. GENERAL INFORMATION.....	- 5 -
Section 3. OBJECTIVES OF THE SITE.....	- 5 -
Section 4. STRUCTURE OF THE SITE.....	- 6 -
Site languages .....	- 6 -
Site structure (Ukrainian version) .....	- 6 -
Site structure (English version) .....	- 7 -
Section 5. FUNCTIONALITY OF SITE SECTIONS.....	- 7 -
HOME PAGE .....	- 9 -
ABOUT US .....	- 10 -
SCHOOL OF TRAINERS.....	- 16 -
PTCU SERVICES .....	- 17 -
NEWS.....	- 17 -
FOR USERS.....	- 21 -
CONTACTS .....	- 22 -
Privacy Policy .....	- 22 -
Section 6: DESCRIPTION OF THE SITE FEATURES AND FUNCTIONALITY .....	- 22 -
Section 6a. PERSONAL USER ACCOUNT .....	- 23 -
Section 6b. Booking of the dormitory, shooting gallery, gym. ....	- 23 -
Section 6c. User identification .....	- 23 -
Section 6d. Online payment .....	- 24 -
Section 6e. Site administration (admin panel) .....	- 25 -
Section 7. Website design requirements.....	- 25 -
Section 8. TECHNICAL SEO OPTIMIZATION OF THE SITE .....	- 28 -
Section 9. Requirements for types of support and security .....	- 33 -
Section 10. The composition and scope of website development work.....	- 34 -
Section 11. Scheduled start and end dates for the website development .....	- 34 -
Section 12. The procedure for monitoring and acceptance of the website development work .....	- 34 -
Section 13. Requirements for the composition and scope of the going live work for the website .....	- 35 -

## Section 1: TERMS AND DEFINITIONS

Term	Description
HTML	Hyper Text Markup Language (Hypertext markup language).
CSS	Cascading Style Sheets (Ukr. <i>Каскадні таблиці стилів</i> ). Language of the page style and elements. A style file shall have the corresponding .css extension.
PHP	A programming language used to create the site core and implement its functionality.
Javascript	A programming language used to implement site functionality and effects that are not provided by conventional HTML and its variants.
SQL	A programming language for user interaction with databases. A database shall have the corresponding .sql extension.
Sitemap	The content of the site is presented in the form of links to the pages of the site according to the structure.
User authentication	The process of establishing that the user belongs to the information in the system of the site ID presented by them. Authentication is part of the procedure for granting access to work on the site, which is the next after identification and pre-authorization.
Adaptive grid	A grid based on relative rather than fixed width markup, which allows web page elements to resize to fit any screen width.
Admin panel	Administrative part of the site - closed to visitors part of the site, designed to manage the site. Management is carried out by the administrator (technical support) and site editor (information support), manager (order processing).
Alt and title attributes	The hyper text markup language specifies the alternate text and title for the images

	that the web browser uses when the image is not displayed.
Web browser	A third-party client program that allows you to view the content of web pages.
Web interface	A set of screens and system controls that allow a user who accesses the system through a web browser to support and manage the system.
Website / site	A set of interconnected static and dynamic pages containing text data, images, videos and other digital information, combined under one address (domain name) on the Internet.
Hyperlinks (link, URL)	An active piece of text or image that allows you to load another page or perform a specific action.
Website design	Unique for a particular website structure, graphics and ways of presenting information. Unique for a particular website structure, graphics and ways of presenting information. The design contains elements of the external design of the site pages, as well as a set of special tags used by the site publishing system to display information when creating the final pages.
Dynamic page	A page of a site that processes and extracts information from a database using program code.
Domain name	Symbolic name of the hierarchical space of the Internet. The full domain name consists of the names of all the domains it includes, separated by dots.
Content element	A separate entry in the database, the external representation of which depends on the software module that manages it (for example, in the module "news feed" the content element is a separate news item).
QES	“QES of the Prosecutor's Offices of Ukraine: Qualified Electronic Signature of the Prosecutor's Offices of Ukraine is an advanced electronic signature generated using a qualified electronic signature tool and based on a qualified public key certificate and issued by a Qualified Provider of Electronic Trust Services of the Prosecutor's Offices of Ukraine.”
Public part of the site	The main information part of the site is open to visitors.

Tag titles <h1> - <h4>	Level headers from <h1> to <h4>: HTML markup language headings of different levels, which indicate the level of hierarchy (importance) of the text block in the page structure of the official website.
Closed part of the site	Information or functional part of the site, which is accessible to certain types of target audience by a certain means of identification.
User identification	Electronic identification system for identity of the user on the Internet and for the possibility of using electronic services.
Interface	A set of tools by which a user interacts with a website through a browser.
Site content	The set of information content of the website. Includes texts, images, files, etc. intended for users of the site.
Site user	The person who visits the website.
Metadata	A set of valid structured descriptions that are explicitly available and whose purpose is to help find an object.
Meta tag	Web page markup element. Used to describe pages, keywords, and other data.
Navigation	The mechanism used in the interface of the official website, the purpose of which is to provide the user with the ability to track their location in the structure of the website. On web pages, navigation chains are displayed horizontally at the top of the web page, below any headers or toolbars, and show hyperlinks to previous web pages.
Sidebar	Pinned site sidebar, navigation area, or supporting information that is visually separated (highlighted) from the main content area.
Content Management System (CMS)	Information system that allows the administrator, editor and participant to make changes in the hierarchical structure and content of the website without the use of any additional special software and knowledge of programming languages.
Backup	A set of database objects, presented in the form of files, which allows you to restore an exact copy of the structure of the original database in a similar database management system.
Hosting	Disk space service for the physical storage

	of information on a server that is constantly on the Internet.
Friendly URL	Url pages of the site, built in Latin and understandable to users.
Official website header	The upper part of the official website, which usually does not change when viewing other pages and contains basic information about this web resource.

## Section 2. GENERAL INFORMATION

This Technical Requirements (hereinafter — TR) for the creation of the PTCU Website (Prosecutor`s Training Center of Ukraine) is designed to further develop a convenient and modern web tool that will ensure proper, and in accordance with the requirements of Legislation, information and services provision to the PTCU target audience. The TR establishes mandatory requirements for the development of the PTCU site, its operation and administration.

**IMPORTANT!!!** *The website shall be developed as part of an integrated information system based on the Odoo community information product (hereinafter referred to as the IIC) and, correspondingly, all functions described in this document shall be synchronized with the terms of reference for the IIC implementation.*

*This document shall be provided to bidders to assess the complexity and cost of implementation of the IIC and the website as part of it. If the functionality described in this document contradicts the technical requirements for the ICC implementation, the norms described in the technical requirements for the ICC implementation shall apply.*

**Customer:**

**Performer:**

## Section 3. OBJECTIVES OF THE SITE

The new PTCU site is created to provide high-quality coverage of information about PTCU activities, to provide high-level and using modern technologies of educational and related services to the target audience, to improve processes of communication, trainings, and service receipt by TA users (users who are the PTCU service recipients as per the IIC implementation TR).

## Section 4. STRUCTURE OF THE SITE

### Site languages

Ukrainian and English languages of the site.

The main (starting) language is Ukrainian.

Ukrainian - <https://ptcu.gp.gov.ua>

English - <https://ptcu.gp.gov.ua/en>

### Each language version of the site:

- has its own unique pages
- when changing the language, the user goes to the corresponding page in the selected language
- it is possible to fill in unique metadata for the pages of each language (title, description)
- all pages are edited through the admin panel
- all sales pages and materials are not subject to mandatory duplication in the English version.

### Site structure (Ukrainian version)

- 1. Головна сторінка**
- 2. Про нас**
  - 2.1. Про тренінговий центр
  - 2.2. Керівництво та структура
  - 2.3. Нормативні акти
  - 2.4. Доступ до публічної інформації
  - 2.5. Публічні закупівлі
  - 2.6. ЗМІ про нас
  - 2.7. Фото та відео
  - 2.8. Наші партнери
  - 2.9. Регіональні відділення
- 3. Школа тренерів**
  - 3.1. Про школу
  - 3.2. Тренери ТЦПУ
- 4. Послуги ТЦПУ**
  - 4.1. Навчання та підвищення кваліфікації
  - 4.2. Тимчасове розміщення у гуртожитку
  - 4.3. Послуги тиру
  - 4.4. Послуги спортзалу
  - 4.5. Електронна бібліотека
- 5. Новини**
  - 5.1. Календар анонсів
  - 5.2. Новини
  - 5.4. Дайджест ТЦПУ
  - 5.5. Опитування
- 6. Для користувачів**
  - 6.1. Умови використання сайту та доступність інформації

- 6.2. Умови отримання послуг
- 6.3. Політика ТЦПУ щодо персональних даних

## 7. Контакти

### Site structure (English version)

- 1. **Home page**
- 2. **About us**
  - 2.1. About Training center
  - 2.2. Administration
  - 2.3. Legal acts
  - 2.4. Public information
  - 2.5. Public procurement
  - 2.6. Media about us
  - 2.7. Photos and videos
  - 2.8. Our partners
- 3. **School of trainers**
  - 6.1. About school
  - 6.2. PTCU trainers
- 4. **Services**
  - 8.1. Training
  - 8.2. Dormitory
  - 8.3. Shooting gallery
  - 8.4. Gym
  - 8.5.
- 5. **News**
  - 9.1. Events calendar
  - 9.2. News
  - 9.4. Digest
  - 9.5. Polls
- 6. **For users**
- 7. **Contacts**

## Section 5. FUNCTIONALITY OF SITE SECTIONS

General rules for creating the interface of site pages.

### **Important:**

- all the described functions and elements are mandatory for implementation in all language versions of the site;
- please use styles from the CSS file (to avoid creating an extra set of styles by the administrator when editing or filling page content) for content visual design on pages (headings, texts, lists, images) with the appropriate tags and a mandatory list of attributes.

Required page interface elements:

- 1. header  
The header must contain:



- PTCU logo,
- full name: Prosecutor`s Training Center of Ukraine
- language switch (Ukrainian and English)
- Displaying that the version for persons with visual impairments is available (click on and off)
- displaying the "site search" function
- user icon (inactive / active state, accompanying text: "Log in")
  - by clicking the popup appears with the choice of authentication method
    - EDS identification
    - by login and password
- icons of available PTCU pages on Facebook and Youtube social networks (navigation to the pages of social networks by click, link target="\_blank", rel="noindex nofollow")
- horizontal menu of the site according to the site's structure: About us, For users, School of trainers, Services, News, Contacts
  - provided that the horizontal menu is displayed on the site, envisage its freezing during scrolling of the main and internal pages by the user
  - all menu items displayed in the horizontal menu are not clickable (no option to navigate to the appropriate pages), except for the "Contacts" menu item
  - While hovering (or clicking), the clickable menu sections of this menu item are displayed (you need to click in order to navigate to the corresponding page of the site)
  - in the mobile version of the site design, the horizontal menu should be located in the "burger menu" and open by clicking
  - \*in the desktop version of the site design, to consider the option of displaying the horizontal menu in the "burger menu" upon approval by the Customer

## 2. footer

The footer must contain:

- PTCU logo,
- full name: Prosecutor`s Training Center of Ukraine
- icons of available PTCU pages on Facebook and Youtube social networks (navigation to the pages of social networks by click, link target="\_blank", rel="noindex nofollow")
- contacts:
  - address
  - phone/phones
  - email
- "Privacy Policy" with a link to the corresponding separate page of the site with the terms of personal data processing
- Visa, mastercard logos (requirement for the connection of an online payment service)
- "Terms of payment" with a link to the corresponding separate page of the site with the payment and refund terms; requirement for the connection of an online payment service)

3. breadcrumbs (for all internal pages [2nd and subsequent nesting levels])

4. back to top button to quickly scroll to the top of the page.

# HOME PAGE

Home page interface

## 1. News block

Dynamic block, displaying a preview of the latest news by date for 3–6 publications (depending on the design) with the navigation by click to the relevant internal page of the news.

The news preview contains data from the news publication:

- news headline
- photo of the news
- date of publication of the news
- “all news” button (clicking on the button takes you to the “News” category page)

## 2. Announcements Block

Dynamic block that displays a list of current announcements (publications in the “Announcements Catalogue” category). The block should be located in the full width of the page layout and fit vertically into 1 device screen (for a holistic visual perception and easy viewing of information by users).

The block consists of 2 columns equivalent in width.

1<sup>st</sup> column: Displays the dynamic calendar with the events (announcements) to take place on that particular date linked to and displayed in it.

### Calendar requirements

- the current month of the current year is displayed by default
- calendar days, depending on the value, must have 3 different visualizations to be distinguished by a user:
  - passive day with no event (announcement) on it
  - active day with events (activities) planned or held on it
  - active day activated by click
- only those days in the calendar are clickable for a user in which there are / were events (announcements)
- Clicking on a calendar date without an event, the user will be prompted with no activity tooltip (e.g., "Unfortunately, no events are scheduled for this day")
- the calendar switches monthly both for past and future viewing

2<sup>nd</sup> column: displays announcements preview

### Requirements for the preview of announcements:

- by default (user did not interact with the calendar), 2–4 latest (by publication date) previews (depending on the design) of announcements (events) are displayed.
- subject to the user’s interaction with the calendar, those previews of announcements (events) are displayed that correspond to the day selected by the user for viewing (by click)
- In case of a large number of announcements for a certain day selected by the user, after displaying the maximum number of announcement previews (determined by the block design layout), the "view all announcements" button is displayed, clicking on which displays previews of all announcements available for that day

### Requirements for displaying the preview of announcements:

The announcement preview shall show:

- announcement title
- announcement photo
- date of the event
- time of the event
- “details” button (clicking on the button takes you to the page of this announcement)

## 3. About PTCU Block

Content static block announcing the Center’s activities:

Terms of reference for the PTCU website development, Kyiv, 2022

- text information (up to 1,000–2,000 characters without spaces): title (<h1> tag), text, unnumbered list
- presentation video (iframe youtube) / photo
- “More about PTCU” button (clicking on the button, the user is redirected to the “About the Training Center” page with the corresponding url)
- "Regional branches" tab with a list of branches, clicking on the branch takes you to the site of the regional branch (a href target="\_blank").

#### 4. State resources Block

Content static block displaying a mandatory list of public resources in the form of banners with the name of the body and links to relevant sites (a href target="\_blank").

Homepage administration:

1. Blocks that can't be edited through the home page administration
  - news block
  - announcements block

\*Provide convenient administration of the number of announcement and news previews displayed on the main page

2. Blocks that can be edited through the home page administration
  - PTCU block: the administrator can edit the text information of the block, change photos and videos
  - State resources block: the administrator can edit the list of resources, change the number of elements, description, banner/image, links to external resources

## ABOUT US

About the Training Center

“About the Training Center” page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- numbered/unnumbered lists
- photo
- video (iframe youtube)

Page administration:

- the administrator can edit all the content of the page, change the page title, text, photos, and videos via the admin panel

Leadership and Structure

“Leadership and Structure” page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- numbered/unnumbered lists
- photo

Page administration:

- the administrator can edit all the content of the page, change the page title, photo, and text via the admin panel

## Legal Acts

“Legal Acts” page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- list of documents with the link to the document in .pdf format (for links to documents, it is preferable to use the target=“\_blank” attribute)

Page administration:

- the administrator can edit all the content of the page, change the page title, text, upload documents to the page (or via the site file library) automatically generating a link to the document (or with an option to add a link to the document) via the admin panel

## Public Information Access

“Public Information Access” page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- list of legislative documents with the navigation to the full version of the document on the website of the Verkhovna Rada of Ukraine via the link (it is compulsory to use the target=“\_blank” attribute for links)

Page administration:

- the administrator can edit all the content of the page, change the page title, text, and add/edit the list of legal acts and links to them via the admin panel

## Public Procurement

“Public Procurement” page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- interactive tabs by years (2022, 2021, 2020), clicking on which displays the content generated under this tab (implementation of the tabs functionality via CSS or JavaScript):
  - tabs have 2 different types of visualization according to the active and inactive state
  - the tab status changes by the user’s click
  - the active tab of the current year is default and displays a list of procurement activities carried out by PTCU on a tender basis in the current year
- list of procurement activities with the navigation to the procurement publication source via the link (it is compulsory to use target=“\_blank” rel=“noindex nofollow” attribute for links)

Page administration:

- the administrator can edit all the content of the page: title, text, and tab title
- add information about procurements along with links via the admin panel
- create new tabs, delete outdated tabs

## Media about Us

“Media about Us” page interface

Dynamic page: category of publications (entries, posts) that displays previews of the publications in the category.

The page consists of the following elements:

- title (category title, <h1> tag)
- The publication previews are displayed:
  - by publication date (most recent publications are displayed first in the list)
  - 10 previews per page
  - pagination to view previous publications (pagination is not applied if there are fewer than 10 entries on the category page)
- The publication preview consists of the following elements:
  - publication title (<h2> tag)
  - announcement text
  - date of publication
  - "Details" button with the navigation to the publication page on the site / on an external media web resource (it is compulsory to use target="\_blank" rel="noindex nofollow" attribute for links)

Category administration:

- the administrator can edit the title of the category, change the number of publication previews for display in the "Media about Us" category via the admin panel

## Publication in the "Media about Us" category

Page interface of the publication in the "Media about Us" category

The publication page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- announcement text (for preview)
- publication preview photo
- full text of the publication
  - subtitles (<h2> – <h3> tags)
  - numbered/unnumbered list
  - photo
  - video via (iframe youtube)

Administration of publications in the category:

The administrator can create publications to display in the "Media about Us" category. **Steps to create a page via the admin panel:**

- to fill in the publication title field (<h1> tag)
- to choose the category of publication: "Media about Us"
- to select (optional) the "Link to another source" parameter. If you select this parameter:

- the administrator shall paste in the appropriate field a link to another web resource (the rule for linking to the third-party sources is enabled by default according to the link class — target=“\_blank” rel=“noindex nofollow” attributes)
- the next content block of the publication, which determines displaying of the publication page on the site becomes inactive until the content is filled in
- to fill in the content block of the publication using a suitable visual editor:
  - to create subtitles (<h2> – <h3> tags)
  - to insert or write text
  - to create a numbered/unnumbered list
  - to add 1 photo or several photos
  - to insert a video via iframe youtube

**Category publication statuses** that can be managed by the administrator:

- draft
- published
- to Recycle Bin

**Editing of publications in the category:**

The administrator can edit in the publication:

- all content of the category publication
- link to another source
- change the date of publication
- change the status of publication

## Photos and Videos

“Photos and Videos” page interface

Dynamic page — the parent category of publications (entries, posts), which has a hierarchical structure and consists of subcategories:

- Photo
- Video

**Requirements for displaying the category page:**

- title (category title, <h1> tag)
- availability of a sidebar (the location of the sidebar can be to the left / right of the main site content as per the design decision and upon agreement with the Customer) with clickable subcategories of the parent category (navigation to the subcategory page by click)
- displaying previews of the last 10 publications by publication date (most recent publications are displayed first in the list)
- pagination to view previous publications (pagination is not applied if there are fewer than 10 entries on the category page)

**The publication preview consists of the following elements:**

- publication preview photo
- publication title (<h2> tag)
- subcategory name
- date of publication
- “Details” button with the navigation to the publication page

Category administration:

- the administrator can edit the title of the category, change the number of publication previews for display in the “Photo and Video” category via the admin panel

*\*The number of previews parameter in the parent category is automatically followed by subcategories*

## Photo, Video Subcategory

### Subcategory page interface

Dynamic page: category of publications (entries, posts) that displays previews of the publications in the subcategory.

#### **Requirements for displaying the subcategory page:**

- title (category title, <h1> tag)
- availability of a sidebar (location of the sidebar as per the design of the parent category), an active subcategory shall be visually distinguished from the inactive subcategory
- displaying previews of the last publications by publication date (most recent publications are displayed first in the list) in the quantity that corresponds to the parent category
- pagination to view previous publications (pagination is not applied if there are fewer than 10 entries on the category page)

#### **The publication preview consists of the following elements:**

- publication preview photo
- publication title (<h2> tag)
- subcategory name
- date of publication
- “Details” button with the navigation to the publication page

#### Subcategory administration:

- the administrator can edit the subcategory title via the admin panel

## “Photo”, “Video” Subcategory Publication Page

### Publication page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subcategory name
- publication preview photo
- publication text
  - subtitles (<h2> – <h3> tags)
  - numbered/unnumbered list
  - video (iframe youtube)
- photo gallery for publications in the “Photo” subcategory
  - thumbnails of the photo gallery in the “tiles” format
  - clicking on the photo opens a popup slider window with an active photo in enlarged size
    - the slider has active navigation elements that perform the following functions: forward (next photo opens), backward (previous photo opens provided that the user did not click on the first photo thumbnail), close (slider closes)

#### Subcategory publication administration:

The administrator can create publications to display in the “Photo” and “Video” subcategories.

#### **Steps to create a publication page via the admin panel:**

- to fill in the publication title field (<h1> tag)
- to select a subcategory of the publication from the list: "Photo" or "Video"
- to fill in the content block of the publication using a suitable visual editor:
  - to create subtitles (<h2> – <h3> tags)
  - to insert text

- to create a numbered/unnumbered list
- to insert a video via iframe youtube (for Video subcategory)
- to add a photo gallery (for the "Photo" subcategory) by uploading a photo from your device (with the ability to upload photos in bulk)

**Subcategory publication statuses** that can be managed by the administrator:

- draft
- published
- to Recycle Bin

**Editing of publications in the category:**

The administrator can edit in the publication:

- all content of the category publication
- change the date of publication
- change the status of publication

## Our Partners

“Our Partners” page interface

Dynamic page: category of publications (entries, posts) that displays previews of the publications in the category.

The page consists of the following elements:

- title (category title, <h1> tag)
- The publication previews are displayed:
  - 10 previews per page (maximum number of publication previews)
  - pagination to view previous publications (pagination is not applied if there are fewer than 10 entries on the category page)
- The publication preview consists of the following elements:
  - publication title (<h2> tag)
  - announcement text
  - “Details” button with the redirection to the publication page on the site

Category administration:

- the administrator can edit the title of the category, change the number of publication previews for display in the “Our Partners” category via the admin panel

## Publication in the “Our Partners” category

Publication page interface in the “Our Partners” category

The publication page consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- announcement text (for preview)
- publication preview photo
- full text of the publication
  - subtitles (<h2> – <h3> tags)
  - numbered/unnumbered list
  - photo
  - video via (iframe youtube)

Administration of publications in the category:

The administrator can create publications to display in the “Our Partners” category.

**Steps to create a page via the admin panel:**

- to fill in the publication title field (<h1> tag)

Terms of reference for the PTCU website development, Kyiv, 2022



- to choose the category of publication: “Our Partners”
- to fill in the content block of the publication using a suitable visual editor:
  - to create subtitles (<h2> – <h3> tags)
  - to insert or write text
  - to create a numbered/unnumbered list
  - to add 1 photo or several photos
  - to insert a video via iframe youtube

**Category publication statuses** that can be managed by the administrator:

- draft
- published
- to Recycle Bin

**Editing of publications in the category:**

The administrator can edit in the publication:

- all content of the category publication
- change the status of publication

## SCHOOL OF TRAINERS

Non-clickable menu item with a drop-down list of site sections.

### About the School

“About the School” page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- numbered/unnumbered lists
- photo
- video (iframe youtube)

Page administration:

- the administrator can edit all the content of the page, change the page title, text, photos, and videos via the admin panel

### PTCU Trainers

“PTCU Trainers” page interface

The page is static and consists of a content block that displays a list of trainers and includes the following elements:

- title (page title, <h1> tag)
- subtitles (tags <h2> - <h3>) — Full name of trainers
  - subtitles are clickable, clicking opens a popup window with detailed information about the trainer (photo, text)
- text
- numbered/unnumbered lists
- photo
- field for adding links to other sources

Page administration:

- the administrator can edit all the content of the page, change the page title, photo, text, and add links via the admin panel

## PTCU SERVICES

Non-clickable menu item with a drop-down list of site sections:

- Trainings and professional development
- Temporal accommodation in the dormitory
- Shooting gallery
- Gym
- E-library

The same settings and administration rules apply to all sections of this menu item. The text to be posted will be provided by the PTCU.

Section page interface in this menu item

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- numbered/unnumbered lists
- photo
- video (iframe youtube)

Section page administration in this menu item

- the administrator can edit all the content of the page, change the page title, text, photos, and videos via the admin panel

For each section, a separate button with the corresponding function shall be created (placed in the upper right corner of the corresponding section page):

- for the "Trainings and professional development" section: the "Registration for training" button performs the function of navigation to the corresponding tab in the personal account with the schedule of learning programs and/or courses;
- for the "Temporal accommodation in the dormitory" section: the "Booking" button performs the function of navigation to the corresponding service booking page;
- for the "Shooting gallery" section: the "Booking" button performs the function of navigation to the corresponding service booking page;
- for the "Gym" section: the "Booking" button performs the function of navigation to the corresponding service booking page;
- for the "E-library" section: the "Book Search" button performs the function of navigation to the corresponding search page in the library.

As per the established rules for the PTCU service usage, navigation using the button is possible only for authenticated users (only for registered users as per the IIC requirements).

## NEWS

Non-clickable menu item with a drop-down list of site sections.

Terms of reference for the PTCU website development, Kyiv, 2022

## Announcement Calendar

Dynamic block that displays a list of current announcements (publications in the “Announcements Catalogue” category). The page interface imitates the block interface on the main page (see description: Home page → Block announcements).

“Announcement Calendar” Category administration

- the administrator can edit the category title

## Publication in the “Announcement Calendar” Category

Publication page interface in the “Announcement Calendar” category

The publication page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- date of the event
- time of the event
- announcement text (for preview)
- publication preview photo
- full text of the publication
  - subtitles (<h2> – <h3> tags)
  - numbered/unnumbered list
  - photo
  - video via (iframe youtube)

Administration of publications in the category:

The administrator can create publications to display in the “Announcement Calendar” category.

### **Steps to create a page via the admin panel:**

- to fill in the publication title field (<h1> tag)
- to choose the category of publication: “Announcement Calendar”
- to fill in the date and time of the event
- to fill in the content block of the publication using a suitable visual editor:
  - to create subtitles (<h2> – <h3> tags)
  - to insert or write text
  - to create a numbered/unnumbered list
  - to add 1 photo or several photos
  - to insert a video via iframe youtube

**Category publication statuses** that can be managed by the administrator:

- draft
- published
- to Recycle Bin

### **Editing of publications in the category:**

The administrator can edit in the publication:

- all content of the category publication
- change the date of the event
- change the status of publication

## News

### News page interface

Dynamic page: category of publications (entries, posts) that displays previews of the publications in the category.

The page consists of the following elements:

- title (category title, <h1> tag)
- The publication previews are displayed:
  - by publication date (most recent publications are displayed first in the list)
  - 10 previews per page
  - pagination to view previous publications (pagination is not applied if there are fewer than 10 entries on the category page)
- The publication preview consists of the following elements:
  - publication title (<h2> tag)
  - publication preview photo
  - announcement text
  - date of publication
  - “Details” button with the redirection to the publication page on the site

Category administration:

- the administrator can edit the title of the category, change the number of publication previews for display in the “News” category via the admin panel

### Publication in the “News” Category

Publication page interface in the “News” category

The publication page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- announcement text (for preview)
- publication preview photo
- full text of the publication
  - subtitles (<h2> – <h3> tags)
  - numbered/unnumbered list
  - photo
  - video via (iframe youtube)

Administration of publications in the category:

The administrator can create publications to display in the “News” category.

#### **Steps to create a page via the admin panel:**

- to fill in the publication title field (<h1> tag)
- to choose the category of publication: “News”
- to fill in the content block of the publication using a suitable visual editor:
  - to create subtitles (<h2> – <h3> tags)
  - to insert or write text
  - to create a numbered/unnumbered list
  - to add 1 photo or several photos
  - to insert a video via iframe youtube

**Category publication statuses** that can be managed by the administrator:

- draft
- published

Terms of reference for the PTCU website development, Kyiv, 2022

- to Recycle Bin

### **Editing of publications in the category:**

The administrator can edit in the publication:

- all content of the category publication
- change the date of publication
- change the status of publication

## PTCU Digest

### PTCU Digest page interface

Dynamic page: category of publications (entries, posts) that displays previews of the publications in the category.

The page consists of the following elements:

- title (category title, <h1> tag)
- filter for easy viewing of digests in the form of a drop-down list of digests to select
- a preview of the last (by the release date) digest is displayed:
  - publication title (<h2> tag)
  - publication preview photo
  - announcement text
  - date of publication
  - “Details” button with the redirection to the publication page on the site

Category administration:

- the administrator can edit the category title

### Publication in the “PTCU Digest” category

#### Publication page interface in the “PTCU Digest” category

The publication page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- announcement text (for preview)
- publication preview photo
- full text of the publication
  - subtitles (<h2> – <h3> tags)
  - numbered/unnumbered list
  - photo
  - open in pdf format

Administration of publications in the category:

The administrator can create publications to display in the “PTCU Digest” category.

#### **Steps to create a page via the admin panel:**

- to fill in the publication title field (<h1> tag)
- to choose the category of publication: “PTCU Digest”
- to fill in the content block of the publication using a suitable visual editor:
  - to create subtitles (<h2> – <h3> tags)
  - to insert or write text
  - to create a numbered/unnumbered list
  - to add 1 photo or several photos
  - to upload the document in .pdf

**Category publication statuses** that can be managed by the administrator:

Terms of reference for the PTCU website development, Kyiv, 2022

- draft
- published
- to Recycle Bin

#### **Editing of publications in the category:**

The administrator can edit in the publication:

- all content of the category publication
- change the date of publication
- change the status of publication

#### Polls

##### Polls page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- link to google form for the poll

##### Page administration:

- the administrator can edit all the content of the page, change the page title, text, and add links via the admin panel

## FOR USERS

Non-clickable menu item with a drop-down list of sections:

- Terms of use and availability of information
- Terms of service provision
- The PTCU policy on personal data

The same settings and administration rules apply to all sections of this menu item. The text to be posted will be provided by the PTCU.

##### Section page interface in this menu item

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- numbered/unnumbered lists
- photo
- video (iframe youtube)

##### Section page administration in this menu item

- the administrator can edit all the content of the page, change the page title, photo, and text via the admin panel

## CONTACTS

### Contacts page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text
- contacts
- address
- google map

### Page administration:

- the administrator can edit all the content of the page via the admin panel

## Privacy Policy

### Privacy Policy page interface

The page is static and consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- subtitles (<h2> – <h3> tags)
- text

\*The text on the page must contain information about the conditions of personal data processing, terms of purchase and online payment on the site, and refunds.

### Page administration:

- the administrator can edit all the content of the page via the admin panel

## Section 6: DESCRIPTION OF THE SITE FEATURES AND FUNCTIONALITY

In line with the established policies for obtaining services, the site provides access to the corresponding functionality (only through the use of identification tools and/or personal account tools):

- registration for trainings and learning programs
- booking a place in a dormitory
- booking a shooting gallery and gym
- options to use the electronic library
- online payment tools for the PTSU services

*The PTSU services could be obtained only provided that a user is registered in accordance with the IIC requirements. While creating personal user accounts and their functionality, one shall comply with the requirements of the IIC terms of reference.*

## Section 6a. PERSONAL USER ACCOUNT

This section should be synchronized with the requirements of the IIC terms of reference.

The personal user account is a dynamic page that contains several interactive tabs as intended:

- a list of learning programs and courses available to the user (displayed by default);
- user's personal data;
- record of the passed courses (trainings), including scores and certificates received, and the calculated total of the user's points (credits) as of the current calendar year;
- record of the orders and transactions between the user and PTCU (in turn, information is disaggregated into separate thematic tabs)

The page consists of a content block that includes the following elements:

- title (page title, <h1> tag)
- interactive tabs by years (description is provided above), clicking on which displays the content generated under this tab (implementation of the tabs functionality via CSS or JavaScript):
  - tabs have 2 different types of visualization according to the active and inactive state
  - the tab status changes by the user's click

Page administration:

- the administrator can edit all the content of the page: title, text, and tab title
- create new tabs, delete outdated tabs

## Section 6b. Booking of the dormitory, shooting gallery, gym.

This section shall be done in line with the requirements of the IIC terms of reference.

The booking page is dynamic and linked to the functionality of the corresponding IIC system module that covers booking of each service.

## Section 6c. User identification

Site users get access to the PTCU services only through the authentication process.

Disaggregation and definition of the users' types and methods of their authentication shall be done according to the IIC specifications.

### QES identification

QES identification of prosecutors and civil servants is done using the Cipher Cloud Single Cryptographic Operations Service (ESCO), implemented in Java using Spring Boot v2.0.1. A Single Cryptographic Operations Service is designed to create and verify an ES aimed at encryption and decryption using a server-side file key container. In terms of architecture, the implementation of the Single Cryptographic Operations Service is based on a subset of REST requirements and includes a built-in web-server to unify the interaction with the client application over HTTPS.

ESCO description

<https://docs.cipher.kiev.ua/pages/viewpage.action?pageId=8618651>

Terms of reference for the PTCU website development, Kyiv, 2022



## Demo

<https://cryptocenter.cipher.kiev.ua/>

API for file containers and QES verification: <https://docs.cipher.kiev.ua/display/CCSUOS>

Access point: <https://ccs-dev-api.cipher.kiev.ua/ccs/api/v1>

API for working with secure media: <https://docs.cipher.kiev.ua/display/CCAUOS>

Access point: <https://local.cipher.kiev.ua:9090/api/v1/>

API for working with the cloud service: <https://docs.cipher.kiev.ua/display/CVTOKEN>

Access point: <https://docs.cipher.kiev.ua/pages/viewpage.action?pageId=61212727>

1. To develop a system for generating requests to the web-service using the documentation of the Single Cryptographic Operations Service. While developing, one shall take into account the need for system interaction with the ESCO digital signature library.
2. Requests are authorized by a token (key) transmitted within the web-service parameters. The token is received from ESCO. When issuing a token, it shall be "linked" to the site database of users (prosecutors, civil servants). The user's personal data shall be received through the QES certificate:
  - Full name (surname, given name, patronymic)
  - Organization
  - Unit
  - Position
  - Region
  - Settlement
  - TIN
  - Certificate number
3. When a user is first identified, a user profile is created in the IIC database based on the received certificate data, and the certificate data is entered into the user profile.
4. The next time a call is processed, the key compliance and user profile availability are checked by the TIN code, which is determined by the token specified in the QES certificate.

## Section 6d. Online payment

On the PTCU website, a user can pay for the following services:

- trainings and/or learning programs (for paid trainings)
- printed learning materials and materials from the electronic library
- booking services:
  - dormitory
  - shooting gallery
  - gym

Payment on the website should be realized through the Internet acquiring service — LiqPay payment gateway or another similar one (hereinafter referred to as the "PG") (the provider shall be selected by the PTCU before starting to draft the IIC terms of reference):

1. One needs to generate a request to the Checkout API in accordance with the PG technical documentation.
2. As a result of query execution, the client is redirected to a new browser tab, where the payment page of the respective PG will open.
3. The client fills in the card details and confirms the payment on the PG payment page.
4. At the end, website receives a response from the payment gateway on the payment status (all information on transaction processing and its final result is stored and displayed by IIC means in accordance with the technical requirements for the ICC implementation).

*\*The PTCU shall independently create a payment account of a legal entity in the payment gateway after having technical consultations with the project contractor.*

*\*Please note that if you decide to connect payment gateway and payments via API, there are special requirements for the SSL certificate usage, namely: you need a PCI DSS (Payment Card Industry Data Security Standard). Acquisition of a SSL certificate shall be performed by the PTCU.*

## Section 6e. Site administration (admin panel)

### General requirements for site administration

The admin panel structure should be clear and convenient for administrators and consist of sections in accordance with the described website structure (section 4 of the TR).

The site content should be managed through a content editor, which can be used to conveniently add text, titles, lists, images, and videos.

You need to log in to the admin panel to work with it. You can navigate to the admin panel by following the link to the login page.

Window with the fields (all fields are required):

- E-mail
- Password
- Login button

*\*There is also an option to log out of the account.*

*\*Access is blocked after 3 unsuccessful attempts of the admin panel user to authorize.*

*Additional protection for the admin panel login shall be envisaged (choose from):*

1. IP restrictions
2. additional window for pre-authorization of the admin panel user

### Admin panel user roles

1. Super admin
  - unlimited rights and access
2. Administrator
  - managing structural sections and publications on the website
  - managing admin panel user roles
  - managing website user profiles
3. Editor
  - managing publications on the website

### **Making changes via the admin panel**

The admin panel shall allow its users to make changes without stopping the site operation provided that the changes do not affect the data storage structure at the database server level. In case you need to stop the site operation to make changes, the modification time should not exceed 2 hours.

In case of unsuccessful changes, it should be possible to return to the previous working version of the site.

## Section 7. Website design requirements

Website design should be based on the design system of state websites of Ukraine.

A full description of the requirements and recommendations for website design is available at:

<https://design.gov.ua/ua>

## 7.1. General requirements

- The maximum default page width is 1,170 pixels (can be increased if needed).
- The minimum screen size of a mobile device is 320 pixels.
- The design should have the version for persons with visual impairments.

## 7.2. Typography:

Proba Pro font in [Regular](#), [SemiBold](#), and [Bold](#) typefaces, which is licensed for use in the gov.ua domain zone.

### **Titles**

- there should be only one <h1> level header on the page, which indicates which page the user is on
- the number of header levels from <h1> to <h4>. The <h4>, <h5>, and <h6> headers have the same style
- the line spacing of the header should be 1.5 times larger than the font size; spacing between the title and paragraph: 60, 40, 30, and 25 pixels, respectively

### **Text**

- the font of the main text is not less than 16 px, and the line spacing is 1.5 times larger than the font size;
- text alignment on the left edge
- optimal line length: from 40 to 80 characters; text block width: up to 750 pixels

### **Links**

- should differ from the whole text not only in color but also in underlining

### **Lists**

- bulleted lists are used to set out unordered items
- numbered lists are used for sequences, hierarchies, or step-by-step instructions
- line spacing between bullets in a list should be 1.2 times larger than the font size

## 7.3. Colors

Use a color palette that includes shades of blue, gray, and white; the following primary colors are mandatory:

- shades of blue: #2D5CA6 (link, navigation); #234161 (link while hovering on it);
- shades of grey: #6D727C (secondary text); #C2C5CB (boundaries, inactive elements); #F5F7FA (background of selected blocks);
- white: #FFFFFF (main background of the web page);
- black: #1D1D1B (colors of the main text, titles);
- yellow: #FFE358 (buttons, information blocks that shall attract the user's attention);
- purple: #552C92 (visited links);
- red: #FF0000 (error notification);
- when using light shades of color, the opacity should be 75 and/or 50 percent.

## 7.4. Site elements

The website must meet the following requirements:

- interface elements shall be placed on the page of the official website through a series of rows and columns using a modular grid. It is recommended to use a 12-column adaptive grid;
- the website header shall be located horizontally at the top of each website page;
- the horizontal menu shall contain no more than eight items (hyperlinks to the website sections), each of which shall have sub-items placed in three or four columns;
- all web pages of the official website shall contain a navigation chain component, which is placed horizontally under the header of the web page, indicates the disposition of the

active web page in the website structure, and contains hyperlinks to web pages from the top levels of the website structure hierarchy;

- for visualization, give preference to icons in vector format (svg);
- favicon uses a 16×16 pixel image in ICO file format;

### **Images, audio and video content**

- Icons and other graphics and audio materials used on the official website shall be distributed in accordance with the requirements of intellectual property law, as well as be clear and simple. It is recommended to give preference to vector graphics.
- On the main web page of official websites, it is not allowed to simultaneously use a large number of images, which contain large amounts of text, and/or the purpose of which is to get up the web page. It is recommended to give preference to structured textual data and symbolic drawings depicting actions, phenomena, objects.
- Audio and video materials shall be accompanied by text equivalent to the information contained in the audio and video recordings. Information on the running text line, graphics and multimedia should be duplicated in plain text.
- Photos of leadership, employees, etc. shall meet the following requirements: the photo should have a neutral light background and a clear portraiture; close-up of the face and shoulders; the person should look into the lens; avoid red-eye, glare, lightening or darkening effects. It is not recommended to mirror the photo.

### **Content formats**

- It is recommended to publish documents placed on the official website in the text format directly on the webpage and, if necessary, supplement them with files indicating their format and size.
- If no information in the text format is published directly on the webpage, the uploaded file should have a short text description and information about its format and size.
- Regulations and draft regulations shall be published in the text format on the webpage of the official website; if necessary, files in other formats may be uploaded there.

### **Texts**

- The text should be simple and short. The text should be divided into sections with headings, paragraphs, avoiding long sentences, complex words and phrases, special terms, as well as non-common abbreviations. The recommended sentence length should be seven to twelve words.
- The contrast ratio between the main text and its background should be at least 4.5:1.
- The use of small font sizes and decorative fonts is not allowed.

### **Lists**

- Lists shall be created using the HTML code.
- Line spacing between bullets in a list should be 1.2 times larger than the font size.
- It is recommended to avoid nesting higher than the third level for lists.

## Requirements for site layout

### **General requirements for implementation**

- links to the portal internal sections should open in the same window, and links to external resources should open in a new window and be marked with an icon
- headings shall not contain links
- a link shall not include spaces before and after it, as well as punctuation characters after it. If the link does not contain accompanying text, there should be no full stop in the end.
- e-mail address in the link format such as "mailto", for example: minister@kmu.gov.ua
- phone number in the link format such as "tel", for example: +380 44 123-45-67
- when generating a link to the file, one shall specify its type and size in KB or MB

Some technical requirements for the usability implementation:

- the viewport tag must be specified (responsible for displaying the content of the page correctly)
- flash elements should not be used
- Silverlight plug-ins and Applet cannot be used
- all interactive elements must be created using HTML5
- the text size should be adjusted to the screen size of a particular smartphone or tablet for comfortable reading

Some usability requirements for the mobile version of the site design:

- important information must be set out in the text of at least 16 px in size. The indent from the margin should be about 15 px.
- the optimal distance between the interactive elements is at least 27 px
- a user should be able to easily scroll through or zoom in on the content
- pop-ups or additional layers that interfere with the resource functionality or hinder access to the provided information should be avoided.
- buttons that perform any action, such as "Register" or "Order", should be large enough and convenient to touch and activate with a finger
- autocomplete function and a numeric character set for contact forms should be implemented

Check the site usability for mobile devices via the service:

<https://search.google.com/test/mobile-friendly>.

## Section 8. TECHNICAL SEO OPTIMIZATION OF THE SITE

The site should not have empty pages or dynamic duplicate pages. Such pages should return a 404 server response code, and there should be no links to these pages in the site code.

**IMPORTANT:** All recommendations shall be implemented by analogy on all versions of the site.

### URL structure

- All URLs on the site must be converted to the clean URLs, and must also correspond to the structure of the site.
  - Contain only English letters (Latin).
  - No spaces in the URL.
  - No characters, except for the hyphen "-".
  - Contain only lowercase letters.
  - No extra nesting (unless reasoned by the site structure)

Examples of URLs

<https://ptcu.gov.ua/> (main page in Ukrainian)

<https://ptcu.gov.ua/en/> (main page in English)

<https://ptcu.gov.ua/page-name>, where page-name is a transliterated title <h1> (in Ukrainian or English).

URL address template for news pages:

<https://ptcu.gov.ua/novyny/post-name>, where post-name is a transliterated title <h1>.

<https://ptcu.gov.ua/en/news/post-name>, where post-name is a transliterated title <h1>.

URL address template for service pages:

<https://ptcu.gov.ua/dlya-prokuroriv/kataloh-treninhovykh-prohram/>, where kataloh-treninhovykh-prohram is a transliterated title <h1>.

**IMPORTANT:** All recommendations for generating clean URLs shall be by analogy implemented in both language versions of the site.

## Canonical settings

For all static pages, a canonical attribute shall be specified, which will point to itself to avoid duplication of the pages.

You need to change the rel = "canonical" attribute inside the <head> tag on all static pages of the site (except those with the noindex tag):

```
<link rel="canonical" href="https://ptcu.gp.gov.ua/dlya-prokuroriv/kataloh-treninhovykh-prohram/">
```

Where <https://ptcu.gp.gov.ua/dlya-prokuroriv/kataloh-treninhovykh-prohram/> is an URL of the page for which the attribute is specified.

**IMPORTANT:** No more than one rel = canonical attribute shall be specified for the page. Links in canonical tags should be absolute, not relative.

### **Combination of canonical and noindex tags**

Any website page shall not contain both canonical and noindex tags at the same time as they are conflicting tags.

## Robots.txt file

The robots.txt file for the site <https://ptcu.gp.gov.ua/> should be located at <https://ptcu.gp.gov.ua/robots.txt> (at the web root) and return a 200 server response code.

Service pages (useful for users, but not informative) and url of the web admin panel should be closed in robots.txt:

Example:

```
Disallow: /user profile/
```

```
Disallow: /admin panel/
```

etc.

## Pagination pages

The links and pagination pages formation shall be configured on the website. For this purpose, it is necessary to write links to the corresponding pages in the code of all web pages with pagination. All pagination page addresses throughout the website should be done by the following template:

The first page of pagination: <https://ptcu.gp.gov.ua/novyny/>

The second page of pagination: <https://ptcu.gp.gov.ua/novyny/page2/>

N page of pagination: <https://ptcu.gp.gov.ua/novyny/pageN/>

where <https://ptcu.gp.gov.ua/novyny/> is the address of the site category where pagination is available.

On the 2nd and subsequent pagination pages in the source code, <meta name="robots" content="noindex, follow" /> line shall be placed in the <head> tag's body, which forbids robots from adding the page to the search engine index, but allows to visit it. A canonical tag (<link rel="canonical" href="...">) shall not be placed on the pagination pages, as these 2 tags contradict each other.

**Important:** When publishing useful text content on a category page, it should not be duplicated on pagination pages. All recommendations must be by analogy implemented in all language versions of the site.

## Pages with 3xx and 4xx server response code

The site code should not contain links to pages that return a 3xx or 4xx server response.

## Setting up SEO redirects

Mirror sites with www and without www: to configure a 301 server redirect from all pages with www to corresponding pages without www.

To configure a 301 server redirect from all HTTP pages to the corresponding HTTPS pages.

To configure a 301 redirect for all home page options, such as, from pages:

<https://ptcu.gp.gov.ua/index.php>

<https://ptcu.gp.gov.ua/index.html>

<https://ptcu.gp.gov.ua/index.htm>

<https://ptcu.gp.gov.ua/main>

**to the page:** <https://ptcu.gp.gov.ua/>

Set up a 301 redirect from all uppercase URL pages to the corresponding lowercase URL pages.

Example,

a 301 redirect from <https://ptcu.gp.gov.ua/NOvyny>

to the page: <https://ptcu.gp.gov.ua/novyny>

## Optimization of the site download speed

According to the recommendations of the Google search engine, the optimal download speed for the site should be up to 1.5 seconds, and tolerable — up to 3 seconds.

Mobile and desktop versions of the site should fall into the green zone (google speed test).

Optimally, the page load speed should be at least 90/100 based on the results of the online service test (<https://pagespeed.web.dev/>) for each type of page (home page, category pages, news pages, etc.) both for the desktop and mobile versions.

## Image optimization

Use WebP format for all images on the site.

Use Lazy loading for images.

Alt and title tags should be used for images on site pages.

## 404 error page

The 404 error page shall be displayed when accessing non-existent site pages. The 404 error page must return the HTTP/1.1 404 Not Found code and be formatted in a site style.

## Microformat settings

### Organization's microdata markup

The markup of the organization shall be fully added to all site pages in all language versions. To do this, the information reflected in the microdata markup shall be on all site pages.

```
<script type="application/ld+json">
```

```
{
```

```
"@context": "https://schema.org",
```

```
"@type": "Organization",
```

```
"name": "Prosecutor's Training Center of Ukraine
```

```
"url": "https://ptcu.gp.gov.ua/",
```

```
"logo": "Logo image URL",
```

```
"address": {
```

```
  "@type": "PostalAddress",
```

```
  "streetAddress": "Yuriy Ilyenko (Melnikova) Street, 81-b",
```

```
  "addressLocality": "Kyiv",
```

```
  "addressRegion": "UA",
```

```

    "postalCode": "04050",
    "addressCountry": "UA"
  },
  "contactPoint" : [
  {
    "@type": "ContactPoint",
    "telephone": "380442060053",
    "contactType": "customer service"
  }
  ]
}
}
}
</script>

```

### Microdata markup for news

```

<script type="application/ld+json">
{
  "@context": "https://schema.org",
  "@type": "Newsarticle",
  "mainEntityOfPage": {
    "@type": "WebPage",
    "@id": "News URL",
  },
  "headline": "headline",
  "image": [
    "Photo URL to News 1",
    "Photo URL to News 2",
  ],
  "datePublished": "datePublished": "Date of publication by number (2020-01-01T08:00:00+08:00)",
  "dateModified": "Date of change of publication number 2020-01-01T09:20:00+08:00",
  "author": {
    "@type": "Person",
    "name": "Admin"
  },
  "publisher": {
    "@type": "Prosecutor's Training Center of Ukraine",
    "logo": {
      "@type": "ImageObject",
      "url": "Logo image address",
    }
  },
  "description": "Description is a short description of the article/news content, it is recommended to start the text from the introductory paragraph"
}
</script>

```

### Breadcrumbs microdata markup

```

<script type="application/ld+json">
{
  "@context": "https://schema.org",
  "@type": "BreadcrumbList",

```



```

"itemListElement":
[
{
"@type": "ListItem",
"position": 1,
"item":
{
"@id": "https://ptcu.gp.gov.ua/",
"name": "Home"
}
},
{
"@type": "ListItem",
"position": 2,
"item":
{
"@id": "URL of the lower level of the site",
"name": "The name of the lower level of the site"
}
}
]
}
</script>

```

### Hreflang attribute

Language markup shall be added, and the hreflang attribute shall be correctly configured for language versions of the site. The attribute shall be placed on all pages of the site and include links to all other pages. You need to add a set of <link> elements to the <head> element of each page version with links to all versions of the page.

Hreflang formation rule:

For the Home page:

```
<link rel="alternate" hreflang="x-default" href="https://ptcu.gp.gov.ua/" />
```

```
<link rel="alternate" hreflang="uk-ua" href="https://ptcu.gp.gov.ua/" />
```

```
<link rel="alternate" hreflang="en-ua" href="https://ptcu.gp.gov.ua/en/" />
```

For internal pages:

```
<link rel="alternate" hreflang="x-default" href="https://ptcu.gp.gov.ua/page" />
```

```
<link rel="alternate" hreflang="uk-ua" href="https://ptcu.gp.gov.ua/page" />
```

```
<link rel="alternate" hreflang="en-ua" href="https://ptcu.gp.gov.ua/en/page/" />
```

**Important:** Page URLs must be provided in full, including the https protocol names.

**Important!** Requirements for an alternative language version of the site:

- all pages of the English language version of the site must contain content only in English, and those of the Ukrainian language version shall be in Ukrainian, respectively;
- all menu items and functional elements shall also be translated into the corresponding language;
- it should be possible to implement appropriate meta-tags for pages in different language versions;
- on the site pages in both language versions, canonical must point to itself.

### XML sitemap

The sitemap (sitemap.xml) should be dynamically generated and contain canonical pages with secure HTTPS protocol, available for indexing, which will return a 200 response code. The XML

Sitemap file should include all indexed site pages, and should not include pages closed in robots.txt that contain the robots noindex meta tag, with any server response codes except a 200 one, pagination pages, and dynamic pages with GET parameters.

## Section 9. Requirements for types of support and security

### Requirements for information support

Information support shall meet the following requirements:

- integrity;
- probability;
- control;
- protection against unauthorized access;
- agility;
- standardization and unification;
- usability;
- minimization of input and output of information.

Ensuring information security

- protection should be provided by a set of software and hardware tools at all technological stages of information processing and in all modes of operation, including during routine maintenance;
- software and hardware protection tools should not significantly impair the basic functional characteristics of the site (reliability, performance, ability to change the configuration);
- the delimitation of access rights of users and administrators should be based on the principle of "what is not allowed is forbidden".

### Requirements for language support

All PTCU documentation and software shall be developed in Ukrainian and English.

The user interface of the admin panel shall be in Ukrainian.

The user manual and other operational documentation on the Site shall be written in Ukrainian.

The admin panel should allow input, storage, and presentation of information in Ukrainian and English.

### Software requirements

The Site software shall allow to update the information on the site. The criterion for software quality is the absence of critical and major errors.

By the degree of impact of the software defect, errors should be detected and classified as follows:

- Critical: the most serious consequences of the problem, up to complete inoperability of the site and data loss, complete or partial;
- Major: serious consequences, possible inoperability of certain functions of the site, unstable functioning;
- Normal: a common error, such as a computational error or a broken single object;
- Minor: an unessential error, such as an error in the title or an information format error on the site.

### Requirements for programming languages

The main requirement for choosing a programming language for the development of the PTCU website should be its viability, widespread use by software developers, as well as support for programming language and development technology.

For the development of the Website, modern web development technologies shall be applied, which will ensure the possibility of maintaining the Website for a long time. The site should be developed using a content management system for further easy administration.

## **Security requirements**

Protecting your site, servers, and database is to take precautionary measures that prevent third parties from accessing your web resource.

While developing the Website, it is necessary to take into account and provide protection against:

- attacks:
  - XSS attack
  - Ddos attack
  - SQL injection
- virus infection;
- malicious code infection;
- hacking.

You need to ensure the following security levels:

- software security (CMS, framework, scripts);
- security of the server (hosting), it is desirable to use dedicated hosting (technical requirements for the server shall be developed and provided to the Customer by the Contractor before going live with the site);
- secure connection using SSL certificate (SSL certificate is provided by the PTCU)
- awareness of staff who have access to the admin panel of the site.

To enhance the security of the Site, it is important to build the correct configuration.

### **Responsibilities of the super admin to ensure security:**

- server settings;
- restrictions on the freedom of scripts;
- creation of the mechanisms to control the integrity of the file system, backup system, logging;
- use of anti-virus software;
- configuration via secure SFTP or SCP protocols;
- generation of strong passwords (starting from 8 characters using letters of different case, numbers, and symbols);
- regular storage of content;
- conducting systematic comprehensive website audits.

## **Section 10. The composition and scope of website development work**

This section shall be done in line with the requirements of the IIC terms of reference.

## **Section 11. Scheduled start and end dates for the website development**

This section shall be done in line with the requirements of the IIC terms of reference.

## **Section 12. The procedure for monitoring and acceptance of the website development work**

This section shall be done in line with the requirements of the IIC terms of reference.

## Section 13. Requirements for the composition and scope of the going live work for the website

This section shall be done in line with the requirements of the IIC terms of reference.