Test Project

Design and Front-end  
Web Technologies

TW中英

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# Introduction 介紹

Our world has changed a lot over the past 10 years, the borders of country are blurred, it becomes easier to travel, people learn new worlds and become travellers. But this leads to an increase in the information processed and may be the reason for the loss of the most important and interesting aspects of the life of the studied worlds for travellers.

過去十年來世界大幅變化，國家邊界變得模糊不清，旅遊變得更容易了，人們就像發現新世界一樣，成為旅人。不過這也代表處理的資訊增加了，遊客認識世界時，可能也因此失去最重要而有趣的層面。

This problem is solved by various electronic helpers, simple and affordable Internet services that help to systematize the data, follow the notes of other travelers, create new resources and databases about interesting places and things.

這個問題可藉由各種電子輔助工具來解決，是簡單又便宜的網路服務，幫助將資料系統化，參考其他遊客的評論，為好玩的景點事物建立新資源和資料庫。

Your task will be to develop a working prototype of one of these services – Interactive Presenter. And a one-page marketing site for this presentation on the Internet.

你的工作是要開發這種服務的一款原型(prototype)—Interactive Presenter(互動式簡報工具)，還有一個單頁式網站，可在網路上放簡報。

The main idea of that service is to create a huge database of everything. And to give everyone the opportunity to get acquainted with it in an interactive way, allowing you to concentrate only on this interesting information.

這項服務的主要概念是為所有事物打造巨型資料庫，也讓大家有機會以互動的方式認識資料庫，讓你只專注在有趣的資訊上。

But the company understands that this is a voluminous task, so it suggested that you develop a prototype of a web application for one narrow area - tourist company of Kazan, whose goal is to acquaint visitors of the city with the history, culture and atmosphere of the thousand-year-old capital of Tatarstan in an interactive presentation format. The visitor can choose the route of acquaintance and receipt of information in accordance with his contextual choice on each slide.

但是公司明白工程浩大，所以建議你開發一款網路應用程式的原型，將區域限縮為喀山的旅行社，這些旅行社的目標是以互動式的簡報形式，讓遊客認識Tatarstan首都這座千年古城的歷史、文化，和氛圍。遊客可以選擇認識的路徑與接收的資訊，這些會因為先前選擇不同投影片而變動。

In the future, it is planned to open for everyone to create their own interactive routes and publish them on the company's website. Therefore, special attention is paid to the route editor in terms of convenience and ease of use for the mass user.

將來的計畫，是向所有人開放，可以自己創造互動的路徑，並發表在公司網站上。因此需特別注意路徑編輯器(route editor)，讓廣大使用者群用起來方便易上手。

# Description of project and tasks專案和任務說明

This task is to be completed in 6 hours. The result should work in modern browsers.

這項任務要在6小時內完成，成果應在現代的瀏覽器上正常運作。

The first 3 hours you will create the worked prototype of application using JavaScript ensuring the app works correctly in different web browsers, following the requirements described below.

前三小時裡要創造有效的應用程式原型，方法是運用JavaScript，並確保app能在不同瀏覽器中正常運作，同時符合下列規定。

The second 3 hours must be used to create the design of the one-page marketing site for promoting of service and the application.

後三小時必須用來架立單頁式網站的設計，以宣傳此服務，並設計應用程式的使用者介面。

The main feature of the application is its work in two modes: “Route Editor” for those who want to create and share their impressions of Kazan tourist information and “View Mode” those who study new tourist material. This feature should be reflected in the design of the website.

這個應用程式的主要特點在於兩種模式：“Route Editor” (路徑編輯器)可以創造和分享使用者的喀山觀光資訊，“View Mode” (觀看模式) 可以學習新的旅行事物。這項特點應反映在網站的設計中。

Because the service will be used as presentation tools to promote tourism in Kazan the users of the route editor can be segmented as adult aged 25 - 40 years old. But, for the presentation format it will be targeted for all ages, so that both children and adults can understand about history of Kazan easily.

這項服務會當作簡報工具，用在喀山的觀光推廣，所以route editor的使用者可針對25-40歲成人，不過簡報格式要適合所有年齡層，讓小孩與大人都能輕鬆認識喀山的歷史。

## Glossary專有術語

* Route Editor - a mode in the service that can be used to link different element using links visually and can be controlled using mouse and keyboard

Route Editor路徑編輯器 -是服務中的一種模式，可用視覺link來連起不同元素，透過滑鼠鍵盤來控制。

* View Mode - a mode in the service that can be used to see the end result of all linked elements and their transition (like a presentation of slides)

View Mode觀看模式 –在服務中能用來看所有元素連起來後的最終結果和轉場效果 (就像投影片簡報)。

* Element - a node in the route editor that is used to store the content and link it with other element (like a slide)

元素 – 在route editor中的節點，用來儲存內容，將內容與其他元素連結起來 (如投影片)

* Link - a line in the route editor that is used to store information about the next element to transition and the transition property itself

Link – route editor中的一條線，用來儲存有關下一元素的轉場資訊，及其轉場屬性。

* Transition - an animation that runs in view mode between moving from one element into other element

Transition轉場效果 –是在觀看模式中播放的動畫，從一個元素移到另一元素時播放。

* Content – it is user input data to be demonstrated.

Content內容 –是使用者輸入的顯示資料。

## First 3 hours – front-end programming module 前三小時 –前台程式設計模組

### Route editor路徑編輯器

The editor should work on desktop. In this scope of work, we don’t consider supporting touch devices for editor mode.

此編輯器適用於桌機。在這項工作範圍內，編輯模式不考慮支援觸控裝置。

You need to make the route editor that can be used by the user to link several created elements into a sequence. The functionality of the route editor that you need to make is listed below:

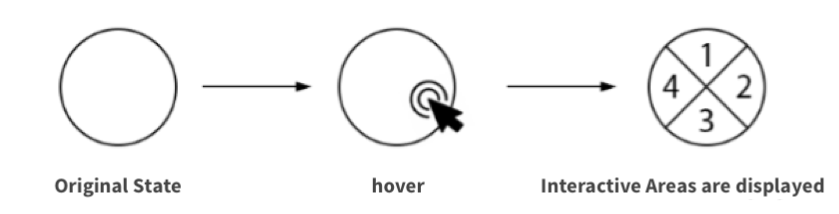
你做出的route editor要能讓使用者將幾個新創元素連結成一個序列，這個route editor須具備的功能如下：

1. When creating a new presentation or clearing the editor, one root element initially appears in the center of the screen. An element can be look like anything (circle, square, star, blob, etc.).

建立新簡報或清空editor時，一個根元素(root element)會先出現在畫面中央，元素外觀不限 (圓形、方形、星形、滴形等等的)

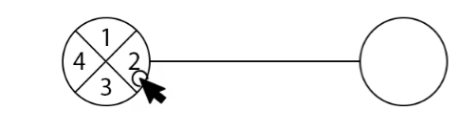
1. The element has 4 interaction areas, (1, 2, 3, 4), which are hidden by default and are displayed only after **hovering** on the element.

這個元素有四個互動區 (1, 2, 3, 4)，預設為隱藏，只有**游標懸浮**在元素時才會顯示。



1. When you click on one of the areas, a related element should appear on the side of the areas node on which the click was made. Link between the elements should be created as well.

點擊其中一個互動區，會在該區的節點側出現一個相連的元素，且同時建立起這兩個元素之間的link。



1. Alongside the 4-interactive-areas, there should be “edit” button and “delete” button for the element which are shown only when element is on hover.

在四個互動區旁要有 “edit” 按鈕和 “delete”按鈕，只有在滑鼠懸浮該元素上時才會顯示。

1. The following features should be implemented for the elements:

請在元素執行下列功能：

* 1. Editing the content of the element (slide). To edit you need to use one of the wysiwyg editors, which will be given to you.

編輯元素的內容 (投影片)。要編輯就需要使用所見及所得編輯器，我們會提供給你。

* 1. Editing captions for each of the sections (1,2,3,4), which will be shown in view mode.

編輯每個互動區(1,2,3,4)的說明文字，說明文字會在view mode顯示。

* 1. Deleting an element by clicking the delete button.

刪除一個元素，方法是點擊刪除鈕。

1. When deleting an element, all links of this element must also be deleted.

刪除一個元素時，該元素的所有link也會跟著被刪除。

1. The user can delete a link by clicking on the link and pressing the **Delete/Back Space** key.

使用者可以刪除一個link，方法是點擊link，並按**Delete/Back Space**鍵。

1. Elements can be moved around the editor by mouse drag. Links should also follow the element.

元素可以用滑鼠拖曳在編輯器中到處移動。Link也要跟著元素移動。

A picture containing sport

Description automatically generated

1. To link two unrelated elements (for example, after removing a connection), with the **Shift** key held down, move a section of one element to a section of another element.

若要將兩個不相連的元素連結起來 (例如在移除連線之後)，按住 **Shift** 鍵，將元素其中一個互動區移動到另一個元素的一個互動區。

A close up of a logo

Description automatically generated

1. The possibility of looping routes is allowed.

可以有迴圈路徑。

1. Any changes done inside slide editor is saved automatically and will be restored upon refresh.

任何在投影片編輯器做的變更都會自動儲存，而且在頁面重整後回復。

The presented examples are only a sketch, you have to choose the appearance, size, animation, reaction time to user actions and other characteristics to improve the usability of the application.

It is expected that you will create additional interface elements and or user interaction mechanism to improve the convenience of the specified functionality.

呈現出來的例子只是草圖，你必須選擇外觀、尺寸、動畫、對使用者動作的反應時間，還有其他特色，來讓這款應用程式更好用。

請創造其他介面元素，且/或 使用者介面機制，以改善特定功能的便利性。

### View mode觀看模式

The view mode should work in both desktop and tablet.

觀看模式要適用於桌機以及平板。

1. You need to create a view mode that open the preview of the slides starting from the root element with an option for moving between content based on linked section that is already modified in the route editor.

你需要建立view mode，功能是打開從根元素(root element)開始的投影片預覽畫面，在router editor改好相連的互動區之後，在view mode也有選項能切換觀看的內容。

1. You also need to implement a transition when there is a movement between element.

你也需要在元素之間移動時用轉場效果。

1. The animation of transition must correspond to the direction of movement and movement along the main path or an additional one (For example, left, right, down, up, in a circle).

轉場動畫必須對應到移動方向、沿著主要路線的移動、或是其他移動 (例如在圓圈中往左、右、下、上)

1. The view mode needs to be seen in full screen mode.

view mode需要以全螢幕模式顯示。

1. The user should be able to understand where he is at the moment and go to the desired element.

使用者應能了解當下的位置，能去他想去的元素。

1. For navigation, this mode should provide movement controls that should be easy to use, including on touchscreen devices. And show the title of that control, which helps the user with the choice of the next step to move.

在導覽功能中，這個模式應提供易上手的動作控制器(movement controls)，在觸控面板裝置上也適用。要顯示控制器的標題，以幫助使用者選擇移動的下一步驟。

1. For navigation in desktop, the viewer allows using number keys (1,2,3,4) on keyboard to navigate to corresponding linked element.

在桌機的導覽功能中，觀看模式可以使用鍵盤上的數字鍵 (1,2,3,4)，來導覽至對應的相連元素。

You need to consider the user experience and design the apps accordingly to be as easy as possible when used and as clear as possible when viewed. Even if you cannot implement a full application, you may implement a view mode as a proof-of-concept to show the client how it works.

你需要考量到使用者體驗，將app盡量設計得方便使用而簡單，看起來清楚易懂。就算無法做完整個應用程式，可以做觀看模式，作為概念驗證，展現給客戶看運作方式。

Your viewer should follow the design that you created at design module and correspond to Web Content Accessibility Guidelines (WCAG) 2.0.

你的觀看模式應符合你在設計模組的設計，並對應到無障礙網頁內容指引 (WCAG)2.0

## Second 3 hours – Marketing One-Pager for the Editor/Viewer 後三小時- 行銷編輯/觀看模式的單頁式網站

Your task is to deliver a graphic design of one-page marketing website for desktop devices in graphical format in 3 hours, following these requirements defined by the client.

你的工作室要做出有平面設計的一個單頁式行銷網站，適用桌上型裝置，且為圖形格式，限時3小時，並符合客戶的下列要求。

Use suitable color schemes to improve readability and aesthetics.

使用合適的配色，以增進可閱讀性與美感。

For one-page website:

單頁式網站的規定：

1. Resolutions for mock-up desktop version; maximum1440 x 900 pixels

Mock-up桌面版的解析度，所有mock-up都必須以滿版像素呈現，且必須包含紅色邊線，邊線最寬3 pixel，顯示螢幕解析度1440x900 pixel的邊界。

1. Elements of web page must be presented:

網頁必須呈現的元素：

* 1. The logo; 標誌
  2. Social icons for sharing; 社群媒體分享圖示
  3. Link to the page with “Suggestions and Feedback”;

有連結可以連到建議與回饋的網頁

* 1. Screenshot(s) of the viewer.

觀看模式的螢幕截圖

* 1. Screenshot(s) of the editor.

編輯模式的螢幕截圖

* 1. Interactive “How it works” with a screenshot(s) of user interface for editor and view modes

互動式介紹 “How it works”，要用editor和view mode的使用者介面截圖

* 1. Call to action to test the product; 行動呼籲(call to action) 鼓勵大家嘗試這個產品

1. The following information should be presented on the web page in creative view to attract attention (text will be prepared for you in media folder):

下列資訊需要網頁中呈現，看起來要夠吸睛有創意 (文字在media folder中有提供)

* + 1. About service and features; 介紹服務與功能
    2. About editor and view mode; 介紹 editor和view mode

Use your knowledge in Web Design principles and best practices to create a website design that captivate the client with a professional work and permit for the end users to reach the main goal of the website - Presentation of the work of the new application in several modes of operation and new features that it provides.

運用你對網頁設計原則和最佳實務的知識，呈現能讓顧客大力讚賞的專業網站，並讓使用者達成網站的主要目標 – 透過幾種操作模式和新特色來展示新的應用程式。

Some media files are available for you in the “media” folder. You must use your creativity to create content or additional media. You can also make changes to all images provided.

有些多媒體檔已提供在 “media”資料夾，務必運用創意來建立內容或其他媒體，你也能在任何圖片上做些修改。

# Instructions to the Competitor給選手的指示

Please follow the following instructions to deliver your work.

請按照下列指示來遞交成果。

1. The media files are available in the ZIP file. You can modify the supplied files and create new media files to ensure the correct functionality and improve the application. You can use any supplied JavaScript framework if you find it necessary.

多媒體檔已放在ZIP檔，可以修改我們提供的檔案，建立新的多媒體檔，以確保功能正常、改良應用程式。若有必要，可以用提供的任何JavaScript framework。

1. Save your design files in a folder called “XX\_ Design\_Module/YY\_content”.

將你的設計檔儲存在資料夾，資料夾名稱 “XX\_ Design\_Module/YY\_content”

1. File name of the design will be in a format like “YY\_content\_NN.png” or “XX\_content\_NN.jpg” with

設計檔的檔名格式為“YY\_content\_NN.png” 或“XX\_content\_NN.jpg”

1. Save any image source files to a folder named “source” inside the “XX\_design\_module/YY\_content” folder. The source files are the files that contain the layers, development files, ie .psd, .ai, .svg.

將所有圖片來源檔案儲存至 ““source”資料夾，就在“XX\_design\_module/YY\_content” 資料夾裡面。來源檔案包含了 layers, development files, 即 .psd, .ai, .svg。

1. Save the working apps in a directory on the server named “XX\_ front\_end\_module”. Be sure that your main file is called index.html.

將正常運作的app存到伺服器上一個目錄，名稱為 “XX\_ front\_end\_module”。請確認你的main file名稱為 index.html

\* XX is your country code, YY is workstation number, NN is the number sequence of image if you have more than 1.

\*XX為國家代碼，YY為工作站代碼。若你的圖片超過一張，則NN代表順序。

# Marking Scheme

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SECTION | CRITERION | JUDG. MARKS | MEAS. MARKS | TOTAL |
| E1 | Editor functionality for Element | 0 | 3.75 | 3.75 |
| E2 | Editor functionality for Connections | 1 | 2 | 3 |
| E3 | Viewer requirements | 0 | 4 | 4 |
| E4 | Animation | 1.5 | 0.75 | 2.75 |
| E5 | Code Quality | 3.5 | 0 | 3.5 |
| F1 | Work Organization and Management | 1.5 | 0.5 | 2.0 |
| F2 | Page Content | 2.75 | 3.75 | 6.5 |
| F3 | Website Design Page Generic | 4.5 | 0 | 4.5 |
| F4 | Page Design | 1.5 | 0 | 1.5 |
| F5 | Target Audience | 2.25 | 0 | 2.25 |