Test Project

Design and Front-end

Web Technologies

Submitted by:

Thomas Seng Hin Mak, Skill Competition Manager  
Ilya Belyakov RU (Lead Expert)

Kenny Alejandro Rios Avila CO

Diego Garcia Gonzalez ES

Valentino Ekaputra ID

Ruchi Pareek IN

Sara HajiMollaMohammadtaher IR

Aizhan Ziyadanova KZ

Daniel Kim Fai Cheang MO

Raya Al Hajri OM

Tran Duc Doanh VN

Jaafar Almoadhen BH

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# Introduction

# 简介

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.

在过去的10年里，我们的世界发生了很大的变化，国家的边界变得模糊，旅行变得更容易，人们学习新的世界，并成为了旅行者。但这会导致处理的信息量增加，也可能成为旅行者在探索世界时失去人生最重要和有趣方面的成因。

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.

这一问题可以通过各种电子助手，便捷实惠的互联网服务来解决，这些服务能有助于系统化数据，跟随其他旅行者的足迹，能创建出关于各种有趣的场所和事情的新的资源和数据库。

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.

你的任务是去开发其中一项服务的工作原型——交互式演示者。以及，一个用于在互联网上进行演示的单页营销网站。

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.

该服务的主要理念是要创建一个包含所有内容的大型数据库，让每个人都有机会以互动的方式了解它，让你只关注这些有趣的信息。

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.

但是该公司意识到这是一项艰巨的任务，因此建议您为喀山的一家狭窄地区的旅游公司开发一个网站应用程序的原型，其目标是让游客以一个交互演示格式来了解鞑靼斯坦千年首都的城市历史、文化和氛围。游客可以根据每张幻灯片上的背景选择来挑选熟悉的路径和信息的接收。

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.

在未来，将计划向所有人开放，去创建他们自己的互动路径并公布在公司网站上。因此，为了方便广大用户使用，要特别重视路径编辑器。

# Description of project and tasks

# 项目和任务描述

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

这项任务将在6小时内完成。成果应该在现代浏览器上运行。

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3小时，您将使用JavaScript来创建应用程序的工作原型，确保app在不同web浏览器上正常工作，请遵循以下描述的要求。

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

后3小时必须用来创建单页营销网站的设计，以推广服务及应用。

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.

该应用程序的主要特点是能在两种模式下工作：“Route Editor”适用于那些想创建并分享他们对于喀山旅游信息的人们，“View Mode”适用于那些想学习新的旅游资料的人们。这个特点应该反映在网站设计中。

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.

因为这项服务将被用作展示工具来推动喀山旅游业，route editor的用户为25-40岁年龄段的成年人。但是，在展示形式上，它将针对所有年龄段的人，以便儿童和成人都能轻松了解喀山的历史。

## Glossary

## 词汇

* 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
* 路径编辑器——服务中的一种模式，可通过可视链接来连接不同元素，并可通过鼠标和键盘进行控制
* 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)
* 视图模式——服务中的一种模式，可用于查看所有链接元素及其转换的最终结果（如幻灯片演示）
* 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——路径编辑器中用于储存内容并将其与其他元素（如幻灯片）连接的节点
* Link - a line in the route editor that is used to store information about the next element to transition and the transition property itself
* 链接——路径编辑器中的一行，用来存储有关要转换的下一个元素及转换属性本身的信息
* Transition - an animation that runs in view mode between moving from one element into other element
* 转换——从一个元素移动到另一个元素之间，以视图模式运行的动画。
* Content – it is user input data to be demonstrated.
* 内容——是即将用来被演示的用户录入数据

## First 3 hours – front-end programming module

## 前三小时——前端编程模块

### Route editor 路径编辑器

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

编辑器应该在桌面上工作。在这个工作范围中，我们不考虑用于支持编辑模式的触摸设备。

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:

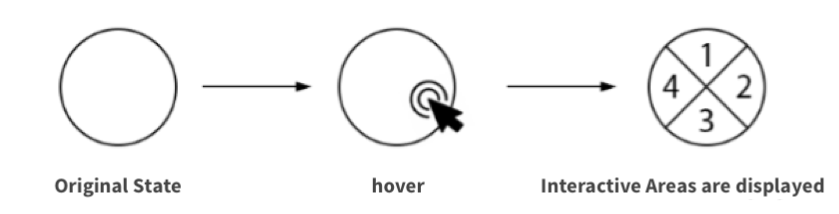
你需要制作route editor，用户可以用它来把几个创建的元素连接到一个序列中。需要制作的路径编辑器功能如下所示：

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.).

创建新演示文稿或清除编辑器时，一个根元素最初显示在屏幕中央。元素可以看起来像任何东西（圆形、正方形、星形、斑点等）

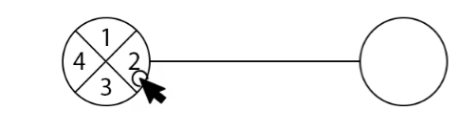
1. The element has 4 interaction areas, (1, 2, 3, 4), which are hidden by default and are displayed only after **hovering** on the element.

元素有4个交互区域（1、2、3、4），默认为隐藏，仅在**悬停在元素上**后显示。



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.

单击其中一个区域时，相关元素应显示在单击所在区域节点的一侧。还应该创建元素之间的链接。



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4个交互区域旁边，应该有“edit”按钮和“delete”按钮，对于元素时只有当元素悬停时才会显示。

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

各元素应具备以下特点：

* 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.

编辑元素（幻灯片）的内容。要进行编辑，您需要使用提供的wysiwyg编辑器之一。

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

将在视图模式下显示的每个部分（1、2、3、4）添加说明文字。

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

通过单击“删除”按钮删除元素。

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

删除元素时，还必须删除该元素的所有链接。

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

用户可以通过单击链接并按Delete/Back Space key删除链接

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

可以通过拖动鼠标，在编辑器周围移动元素。链接也应该跟随元素

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.

要链接两个不相关的元素（例如，删除连接后），按住**Shift**键，将一个元素的一部分移动到另一个元素的一部分

A close up of a logo

Description automatically generated

1. The possibility of looping routes is allowed.

允许环路

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

在幻灯片编辑器中所做的任何更改都将自动保存，并在刷新时恢复

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.

所提供的示例只是一个草图，您必须选择外观、大小、动画、对用户操作的反应时间和其他特性，以提高应用程序的可用性。

期望您创建额外的接口元素和/或用户交互机制，以提高指定功能的便利性。

### View mode

### 视图模式

The view mode should work in both desktop and tablet.

视图模式应该在桌面和平板电脑上都能工作

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.

你需要创建一个视图模式，该模式从根元素开始打开幻灯片预览，并提供一个选项，用于已在路径编辑器中修改过的链接节的内容之间移动

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

当元素之间有移动时，您还需要实现一个转换

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).

转换动画必须与移动方向相对应，移动方向要沿着主路径或与附加路径相对应（例如，左、右、下、上、圆）

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

视图模式需要在全屏模式下查看

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

用户应该能够理解他现在的位置，并到想去的元素

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.

对于导航，此模式应提供易于使用的移动控制，包括触摸屏设备。并显示该控件的标题，这将有助于用户选择要移动的下一步

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

对于桌面导航，查看器允许使用键盘上的数字键（1、2、3、4）导航到相应的链接元素。

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.

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

您需要考虑用户体验，并相应地设计应用程序，以便在使用时尽可能简单，在查看时尽可能清晰。即使不能实现完整的应用程序，也可以利用视图模式作为概念防范，以向客户展示它的工作方式。

您的查看器应该遵循您在设计模块中创建的设计，并符合Web内容无障碍指南（WCAG）2.0。

## Second 3 hours – Marketing One-Pager for the Editor/Viewer

## 后三小时——编辑器/查看器的营销页面

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.

Use suitable color schemes to improve readability and aesthetics.

For one-page website:

您的任务是按照客户定义的这些要求，在3小时内以图形格式为桌面设备提供单页营销网站的图形设计。

使用合适的配色方案来提高可读性和美观性。

对于单页网站：

1. Resolutions for mock-up desktop version; All mock-ups must be in full size in pixels and must include a red border maximum 3 pixels wide, showing the border of the 1440 x 900 pixels screen resolution.

mock-up桌面版本计算机的分辨率；所有mock-up必须为全尺寸（像素），并且必须包括最大3像素宽红色边框，显示1440 x 900像素屏幕分辨率的边框。

1. Elements of web page must be presented:

网页元素必须呈现

* 1. The logo; 标志
  2. Social icons for sharing; 分享的社交图标
  3. Link to the page with “Suggestions and Feedback”; 链接到“建议和反馈”页面；
  4. Screenshot(s) of the viewer. 查看器的屏幕截图
  5. Screenshot(s) of the editor. 编辑器的屏幕截图
  6. Interactive “How it works” with a screenshot(s) of user interface for editor and view modes

交互式“如何工作”，带有编辑器和视图模式的用户界面截图

* 1. Call to action to test the product; 要求测试产品的行为

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):

以下信息应以创意的方式呈现在网页上，以引起注意（文字将在媒体文件夹中为您准备）：

* + 1. About service and features;

关于服务和特点；

* + 1. About editor and view mode;

关于编辑器和视图模式；

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.

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.

利用您在网页设计原理和最佳实践方面的丰富知识，设计令客户心动的专业的网站，并允许终端用户实现网站的主要目标——展示新应用在多种操作模式中的运行以及其提供的各种新功能。

“media”文件夹中有一些媒体文件可供您使用。你必须利用你的创造力创造内容或其他媒体。您还可以更改提供的所有图像。

# Instructions to the Competitor

# 选手指南

Please follow the following instructions to deliver your work.

请按照以下指示提交作品：

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.

媒体文件在zip文件中可用。您可以修改提供的文件并创建新的媒体文件，以确保正确的功能并改进应用程序。如果需要，可以使用任何提供的javascript框架。

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

将您的设计文件保存在一个名为“XX\_ Design\_Module/YY\_content”的文件夹中，其中XX是您的国家代码

1. File name of the design will be in a format like “YY\_content\_NN.png” or “XX\_content\_NN.jpg” with XX is your country code, YY is workstation number, NN is the number sequence of image if you have more than 1.

本设计的文件名格式为“YY\_content\_NN.png”或“XX\_content\_NN.jpg”，其中XX是您的国家代码，YY是工位编号，NN是您的图像编号顺序，如果您有超过1张。

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, .jpg.

将任何图像源文件保存到“XX\_design\_module/YY\_content”文件夹中名为“source”的文件夹中。源文件是包含层、开发文件（即.psd、.ai、.svg、.jpg）的文件。

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

将运行中的应用程序保存在名为“XX\_ front\_end\_module”的服务器目录中。确保您的主文件名为index.html.\*XX是您的国家代码，YY是工作站编号，NN是图像的编号顺序，如果您有超过1个。

# Marking Scheme 评分方案

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SECTION | CRITERION | JUDG. MARKS | MEAS. MARKS | TOTAL |
| E1 | Editor functionality for Element  编辑器元素功能 | 0 | 3.75 | 3.75 |
| E2 | Editor functionality for Connections  编辑器连接功能 | 1 | 2 | 3 |
| E3 | Viewer requirements  查看器要求 | 0 | 4 | 4 |
| E4 | Animation  动画 | 1.5 | 0.75 | 2.75 |
| E5 | Code Quality  代码质量 | 3.5 | 0 | 3.5 |
| F1 | Work Organization and Management  工作组织和管理 | 1.5 | 0.5 | 2.0 |
| F2 | Page Content  网页内容 | 2.75 | 3.75 | 6.5 |
| F3 | Website Design Page Generic  网站设计  网页通用 | 4.5 | 0 | 4.5 |
| F4 | Page Design  网页设计 | 1.5 | 0 | 1.5 |
| F5 | Target Audience  目标观众 | 2.25 | 0 | 2.25 |