模組 3: Back-End 模組 1

Introduction 介紹(mc)

Welcome to Lyon. This vibrant city is known for its historical significance and architectural beauty. In this project, some editors wrote some articles to introduce notable heritage sites in Lyon, France. Each article is written in .html or .txt format, with a front-matter embedded at the beginning of each article for meta information. These files are stored in a folder called "content-pages". Some article files may be stored in sub-folders, or nested sub-folders.

歡迎來到里昂！這座充滿活力的城市以其歷史意義和建築之美聞名。本專案計畫中，一些編輯們撰寫了幾篇文章，介紹了法國里昂的著名遺產地點。每篇文章均以 .html 或 .txt 格式撰寫，且每篇文章的開頭嵌入了前言部分，用於提供元數據信息。這些文件存儲在名為 "content-pages" 的資料夾中，某些文章的文件可能儲存在子資料夾或嵌套的子資料夾中。

There is one "images" folder under "content-pages" folder. All image path mentioned in these articles and all relative to this images folder. That means no images folder inside nested sub-folders. It means when referring to any image names in articles inside sub-folders, these images are all refer to this images folder under the "content-pages" folder.

在 "content-pages" 資料夾下，有一個 "images" 資料夾。文章中提到的所有圖片路徑均與該圖片資料夾相關。這意味著在嵌套的子資料夾中不會有圖片資料夾，因此當引用任何圖片名稱時，圖片均指向 "content-pages" 資料夾下的資料夾。

You are asked to create a website to host these articles. Each article becomes "page", that we refer in the following document. In order to keep the current article writing workflow, we will keep the existing structure of "content-pages" folder unchanged.

您需要創建一個網站來展示這些文章。每篇文章將成為一個網頁，以下文件中會以 "page" 來指代這些文章。為了保持當前的文章撰寫工作流程，我們將保持 "content-pages" 資料夾的結構不變。

In this module, we create a site that lists and loads these files and sub-folders. The site reads these static files from a "content-pages" folder and display the content as web pages. The naming convention for the pages is YYYY-MM-DD-title.txt, or YYYY-MM-DD-title.html.

在本模組中，我們將創建一個站點來列出並加載這些文件和子資料夾。該站點將從 "content-pages" 資料夾中讀取這些靜態文件，並將內容顯示為網頁。頁面的命名規則為 YYYY-MM-DD-title.txt 或 YYYY-MM-DD-title.html。

The web site is reachable at http://wsXX.worldskills.org/XX_module_C/

XX is your seat number.

網站可通過以下網址訪問：http://wsXX.worldskills.org/XX_module_C/，其中 XX 是您的座位號碼。

Description of project and tasks 項目和任務描述

There is no need to use database in this project. The content is stored in the "content-pages" folder, or sub-folders inside it. Anyone can access the home page and the heritage sites page. When accessing the home page, there should be a list of all pages and sub-folders.

此專案計畫不需要使用數據庫，所有內容都儲存在 "content-pages"資料夾或其內的子資料夾中。任何人都可以訪問首頁和遺產地點頁面。

URL Routes and mapping URL 路徑和映射

There are URL routes definition for listing content folder, pages, and querying tags.

有關列出內容資料夾、頁面和查詢標籤的 URL 路由定義。

The URL to each page or sub-folder is defined as following. XX is your seat number.

每個頁面或子資料夾的 URL 定義如下，XX 是您的座位號碼：

/XX_module_c/ shows the index listing

*/XX_module_c/*顯示索引列表。.

/XX_module_c/heritages/2024-09-01-example-page shows the page for 2024-09-01-example-page.html or 2024-09-01-example-page.txt

/XX_module_c/heritages/2024-09-01-example-page 顯示 2024-09-01-example-page.html 或 2024-09-01-example-page.txt 的頁面。

/XX_module_c/heritages/sub-folder-name lists the pages and folders of the specific sub-folder.

/XX_module_c/heritages/sub-folder-name 列出指定子資料夾中的頁面和資料夾。

/XX_module_c/heritages/sub-folder-name/2024-09-10-welcome-to-lyon shows the page of 2024-09-10-welcome-to-lyon.html or 2024-09-10-welcome-to-lyon.txt in the "sub-folder-name" folder.

/XX_module_c/heritages/sub-folder-name/2024-09-10-welcome-to-lyon 顯示「sub-folder-name」資料夾中的 2024-09-10-welcome-to-lyon.html 或 2024-09-10-welcome-to-lyon.txt 的頁面。

/XX_module_c/heritages/sub-folder-1/sub-folder-2/2024-09-10-welcome-to-lyon shows the page of 2024-09-10-welcome-to-lyon.html or 2024-09-10-welcome-to-lyon.txt in the "sub-folder-1/sub-folder-2/" folder.

/XX_module_c/heritages/sub-folder-1/sub-folder-2/2024-09-10-welcome-to-lyon 顯示「sub-folder-1/sub-folder-2/」資料夾中的 2024-09-10-welcome-to-lyon.html 或 2024-09-10-welcome-to-lyon.txt 的頁面。

The URL for tags querying is defined as following. 標籤查詢的 URL 定義如下:

/XX_module_c/tags/tag-name-here shows a page that lists all the pages that contains given tag "tag-name-here"

Note: The paths above are relative to *http://wsXX.worldskills.org*

/XX_module_c/tags/tag-name-here 顯示列出所有包含指定標籤「tag-name-here」的頁面的頁面。 注意：上述路徑相對於 http://wsXX.worldskills.org」

Filename convention 文件命名規則

The filename contains the date, and the title in slug form. It is "YYYY-MM-DD-title-in-lower-case-with-hyphens.html", or ".txt".

文件名包含日期和標題，格式為 YYYY-MM-DD-title-in-lower-case-with-hyphens.html 或 .txt。

The first part of the filename is in YYYY-MM-DD format, YYYY for the year in 4 digits, MM for months in 2 digits, and DD for day in 2 digits.

檔名的第一部分為 YYYY-MM-DD 格式，其中 YYYY 為四位數的年份，MM 為兩位數的月份，DD 為兩位數的日期。

The second part of the filename is the title of the file, in slug form. That is a lower case of the title with all spaces replaced by hyphens.

檔名的第二部分是檔案的標題，採用 slug 形式。即標題的小寫字母，所有空格均以連字符取代。

Here are some sample filenames:

以下是一些範例檔名：

- 2024-09-01-example-page.html
- 2024-10-20-greatest-lyon-heritage-site.html
- 2025-01-01-a-post-for-future-posting.txt

Listing content 內容列表

When listing the content, the list shows the title, and the summary. Clicking either on the title or summary will link to that single content.

列出內容時，應顯示標題和摘要。點擊標題或摘要將鏈接到該單個內容。

The list should not list future pages, which the date is in the future, after today.

列表不應顯示未來的頁面，即日期在今天之後的頁面。

The list also should not list pages in draft state, which the draft is "true" defined in the front-matter of the file.

The list should also hide pages without any dates defined. That is when the first 11 characters is not in the format of "YYYY-MM-DD-".

列表也不應顯示草稿狀態的頁面，即在檔案的前置資料中定義為 "true" 的草稿。 列表應隱藏沒有定義日期的頁面。也就是說，當前 11 個字元不是 "YYYY-MM-DD-" 格式時。

Aside from the pages, the list also lists and links to sub-folders. When click on the sub-folder name, the web lists the content within the sub-folder. That is the pages and sub-folders inside that sub-folder.

除了頁面之外，列表還應列出並連結到子資料夾。點擊子資料夾名稱時，網站應列出該子資料夾中的內容，即該子資料夾內的頁面和子資料夾。

Ordering of content listing 內容列表的排序

The list lists sub-folders first, then it lists the content pages. The sub-folders are listed in alphabetical order. The content pages are listed in reversed alphabetical order. That will result in having the latest pages on the top and oldest pages at the bottom.

列表首先列出子資料夾,然後列出內容頁面。子資料夾按字母順序排列,內容頁面按字母逆序排列。這樣可以使最新的頁面顯示在最上方,而最舊的頁面顯示在最下方。

Accessing content pages 訪問頁面內容

Each file in the content-pages folder contains one heritage content. It includes a path to the cover image, tags, summary and may be the title.

content-pages 資料夾中的每個檔案包含一個遺產內容。它包括封面圖片的路徑、標籤、摘要,並可能包括標題。

In each file, there are two parts in each file content: Front-matter, and the main content.

每個檔案內容有兩部分:前置資料和主要內容。

The front-matter is optional. if there is front-matter, it will be marked with "---" at both beginning and ending of the front-matter section.

前置資料是可選的。如果存在前置資料,它將用 "---" 標記在前置資料部分的開頭和結尾。

Here is an example content in .html extension, with front-matter embedded.

以下是帶有嵌入前置資料的 .html 擴展名檔案的範例內容。

```
---
title: This is an Example Page
tags: example, test
cover: example-cover.jpeg
summary: This is a sample summary.
---
<h1>Example Page</h1>
<p>Here is the rest of the content.</p>
<p>And some other paragraph.</p>

<img src="hello-world.jpg" alt="Sample photo">
<footer>That is all</footer>
```

Here is an example content in .txt extension format.

以下是 .txt 擴展名格式的範例內容。

```
---
title: This is another sample page
```

```
tags: example, test, plain-text
cover: another-cover.jpeg
summary: This is a sample page in txt format.
---
This is sample main content.


Each line of content is turned into <p></p> paragraph.


sample-image.jpeg


The image path / image name with individual line are turned into <img> tag.


This is footer paragraph.
```

The files in the "content-pages" folder can be nested into sub-folders.

content-pages 資料夾中的檔案可以嵌套在子資料夾中。

Front-matter 前置資料

There may be front-matter in the beginning of the content file.

內容檔案的開頭可能包含前置資料。

There may be different key-value pairs defined in the front-matter section. They are:

前置資料部分可以定義不同的鍵值對，這些鍵值對包括：

- title (optional) 標題（可選擇的）
- tags (optional): separated by comma, or comma with spaces
  標籤（可選擇的）：由逗號或逗號加空格分隔
- draft (optional): true, or other values. Any values other than "true" is considered as false.
  草稿（可選擇的）：可以是 true 或其他值。任何值不等於 "true" 的都視為 false。
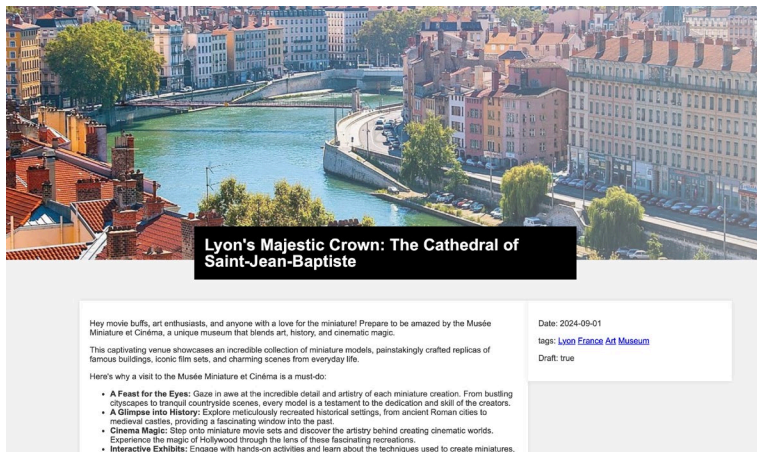- summary (optional): One line only. To be used when listing the pages.
  摘要 (summary)（可選擇的）：僅限一行。用於列出頁面時。

Rendering a heritage site web page 渲染遺產網站網頁

In the rendered page, there are following sections:

在渲染的頁面中，包含以下部分：

- Cover image, 封面圖片
- Title, 標題

- aside information, 附註信息

- main content 主要內容

Cover Image 封面圖片

The path to the cover image of each content page is defined in the front-matter by default.

每個內容頁的封面圖片路徑默認定義在前置資料中。

If the cover image is not defined in the front-matter, the cover image will be the same file name stored in the images folder. In this project, we don't need to consider the missing of this cover image.

如果封面圖片未在前置資料中定義，封面圖片將與儲存在 `images` 資料夾中的檔案同名。在這個專案中，我們不需考慮封面圖片缺失的情況。

Cover image styling 封面圖片樣式

There is a subtle spotlight effect on the cover image.

封面圖片上有一個微妙的聚光效果。

A radial gradient of mask is applied to the cover image. The mask is circle with center point following the mouse pointer, gradient from black to rgba(255,255,255,0) 300px.

在封面圖片上應用了一個徑向漸層遮罩。遮罩是一個跟隨滑鼠指針的圓形，從黑色漸變到 rgba(255,255,255,0) 300px。

Please refer to the cover-image-styling.mp4 in the media files.

請參考媒體檔案中的 `cover-image-styling.mp4`。

On the extraction of title 標題的提取

There is a Title section after the cover image. The content of the title is decided according to the following criteria.

封面圖片下方會有一個標題區塊，標題內容的決定依據以下規則：

The title should be extracted from the following, in order.

標題應根據以下順序提取：

1. When there is "title" defined in the front-matter, the content of Title section uses the value of this front-matter

當前置資料中定義了 "title" 時，標題區塊的內容使用這個 "title" 的值。

2. When there is no "title" defined in the front-matter, the content of Title section use the text content of first <h1></h1> (Simple text content, the h1 will not be rich HTML)

當前置資料中未定義 "title" 時，標題區塊的內容使用第一個 `<h1></h1>` 的文字內容（簡單的文字內容，不包含豐富的 HTML 標籤）。

3. When no any "title" in front-matter nor no h1 tag in the content, the content of Title section uses the capitalization of the file name, without extension and the YYYY-MM-DD date content. Also, all the hyphen slugs (-) are removed and replaced into spaces.

當前置資料中無 "title" 且內容中無 `<h1>` 標籤時，標題區塊的內容使用檔案名稱的大寫形式，不包含副檔名及 YYYY-MM-DD 日期部分。同時，所有連字符（-）應替換為空格。

Styling of the title section 標題區塊的樣式

Please use the common-ligatures typography setting on the title styling.
請使用 `common-ligatures` 字體排版設定來設置標題樣式。

Aside information 附註信息

There are following information in the aside information area.

附註區域包含以下信息：

date, tags, draft (If the draft is true)

日期、標籤、草稿狀態（如果草稿狀態為 true）

The meta information on the side is sticked to the top when scrolling down.

當頁面向下捲動時，附註區域的元數據會固定在頂部。

Rendering main content 渲染主要內容

The main content should be dynamic loaded from the files. 主要內容應從檔案中動態加載。

Here are some file loading strategies. 這裡有一些檔案加載策略：

If the file extension is .html, the main content and any HTML tags are rendered as is. No need to parse or process (Except the image path). They are just rendered as the HTML.

如果副檔名是 .html，則內容和任何 HTML 標籤會按原樣呈現，無需解析或處理（除了圖片路徑）。它們會直接呈現為 HTML。

If the file extension is .txt, there will only be two kind of content. Lines of text and individual line containing image path. Each line of text is turned into HTML paragraphs.

如果副檔名是 .txt，則內容僅有兩種類型：文字行和包含圖片路徑的單獨行。每行文字會轉換為 HTML 段落。

Individual line of image path is turned into image tag. These are lines without any spaces and with image extensions at the end.

圖片路徑行會轉換為圖片標籤，這些行沒有任何空格且以圖片副檔名結尾。

For both .html and .txt, the image paths should be replaced to fit final image paths that work on server.

無論是 .html 還是 .txt 檔案，圖片路徑都應替換為適用於伺服器的最終圖片路徑。

The photos in the content area have full-width to the main content container. The photos in the main content area can be enlarged when user clicks on the photos. Clicking the enlarged photo will close the enlarged photo and revert to the main content. Scrolling during photo enlarged will also close the enlarged photo and revert to the main content.

內容區域中的照片應設為全寬，點擊照片時照片會放大。點擊放大的照片會關閉放大視窗並恢復原來的內容，捲動時也會關閉放大照片並返回內容。

The first letter of the first paragraph has drop cap for 3 lines.

第一段的首字母應使用下沉樣式，佔據三行。

Tags 標籤

Content pages can be filtered by tags. The URL for tags querying is defined as following.

內容頁可以根據標籤進行篩選。標籤查詢的 URL 定義如下：

http://wsXX.worldskills.org/XX_module_c/tags/tag-name-here shows a page that lists all the pages that contains given tag "tag-name-here".

`http://wsXX.worldskills.org/XX_module_c/tags/tag-name-here` 顯示所有包含指定標籤 "tag-name-here" 的頁面。

Searching 搜尋

The web page should be able to search for pages. Please provide a search input and user should be able to search for title or content. Given a search query, the web page should list pages that either the title or the content contains the query string. 網頁應具備搜尋功能，並提供搜尋輸入框。使用者應能搜尋標題或內容。當給定搜尋字串時，網頁應列出標題或內容中包含搜尋字串的頁面。

It should be able to use "/" to define multiple keywords for searching. And the page list the page with title or content that contains either keyword, in OR logic.

搜尋時可以使用 "/" 來定義多個關鍵字，網頁會以 OR 邏輯列出標題或內容中包含任一關鍵字的頁面。

Instructions to the Competitor 選手指引

You may put your project in a sub-folder or different port. Please redirect to your destination from the path wsXX.worldskills.org/XX_module_c/

您可以將專案放在子資料夾或不同的埠號中。請從 wsXX.worldskills.org/XX_module_c/ 路徑重行導向至你的目標位置。例如，

For example, */XX_module_c/heritages/sub-folder-name* may be */XX_module_c/public/heritages/sub-folder-name* or */XX_module_c/index.php/heritages/sub-folder-name* or *:3000/XX_module_c/heritages/sub-folder-name.*

例如，*/XX_module_c/heritages/sub-folder-name* 可以是 */XX_module_c/public/heritages/sub-folder-name* 或 */XX_module_c/index.php/heritages/sub-folder-name* 或 :3000/XX_module_c/heritages/sub-folder-name。

Note if you are using NodeJS, please be aware of the node_modules files for Windows (on workstation) and Linux (on server) is different. Using a wrong node_modules folder may result in unexpected error.

請注意，如果你使用 NodeJS，請了解 Windows（工作站）和 Linux（伺服器）上的 node_modules 檔案是不同的。使用錯誤的 node_modules 資料夾可能會導致預期外的錯誤。

You may provide a README file for executing guide if necessary.

如有必要，您可以提供 README 檔案來提供執行指引。

Please consider better accessibility. Full page scan will be performed by using the aXe accessibility dev tool.

請考慮更好的無障礙性。將使用 aXe 無障礙開發工具進行整頁掃描。

Please define social sharing meta tags for each single heritage page for sharing friendly purpose.

請為每個單獨的遺產頁面定義社交分享的 meta 標籤，以提升分享的友好性。

Please define the .gitignore file to skip node_modules folder and other temporary folder or built folder.

請定義 .gitignore 檔案，以跳過 node_modules 資料夾及其他暫存資料夾或建置資料夾。

This project will be assessed by using Google Chrome web browser.

此專案將使用 Google Chrome 瀏覽器進行評分。