

# EduHK Project Deployment Guide

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This project is about technical documentation support for a web-based educational software. The project consists of 3 parts: client part support by React.js, server part support by Node.js, and .xlsx to .json for management. The project development time was 4 months and 10 days.

According to ChatGPT's recommendations, the time to improve the documentation should be about 20-30% of the project development time. This paper took only 1-2 days to write. Therefore, the author will follow the requirements of the supervisor.

This document focuses only on the deployment section for non-technical personnel. Software engineers can browse the code and comments directly to understand it in more depth.

## Client

The client part of the directory is in the client folder, where the page folder contains 6 coding files, which realize the main function of the page. In animation folder, the author ask designer to use SVG format images to realize the character animation in the database way, but it is still powered by JavaScript.

Thus, if you are non-technical staff and need to change the character animation, you need to perform the following steps:

1. Open the file and modify the case that needs to be modified according to the given format.
2. Place the animation images in the animation folder inside the images folder where you can easily find.

### Debug:

If an error occurs, please check the above two points, including the file name and the name of each case for errors. If the problem is not solved, or you need to update/maintain, you may need the assistance of the software engineer.

## Server

Under the root directory of the project, server.js contains the main functionality of the server, which makes the webpage display content correspondingly, e.g., <Three Little Pigs> by invoking the .json file which converted by .xlsx file. Take dataset\_hearStory.xlsx as an example, the chapters are divided according to the Sheet in the bottom left side of Excel, each chapter contains several elements and some of them are separated by @. The purpose of each part will be briefly explained for better understand.

- scene: Scene sequences
- content: Subtitles
- background: The same as the background file name in the images folder
- character: The same as the character file name in the images folder

- `character_with_animation`: This field specifies which characters with animation are.
- `character_emotion`: This field specifies which facial expressions the characters use.
- `character_position`: The same as the character's position in Figma.
- `character_size`: The same as the character's size in Figma.
- `character_with_audio`: Narrator, the same as file's name of narrator in the images folder.
- `audio`: Sound, the same as file's name of the character's sound in the audio folder.

Thus, if you are non-technical staff and need to change the storyline or modify the content of the story, you need to perform the following steps:

1. Name and place the images and audio files in the corresponding folders.
2. Locate the dataset folder and modify the excel file according to the given format.
3. Convert dataset files to .json format.

Debug:

If an error occurs, please check step 2 and step 3 sequentially. In step 2, the fields filled in maybe incorrect. In step 3, the file name converted maybe incorrect. If the problem is not solved, you may need the assistance of the software engineer. In this case, the corresponding files are story mode 1&2.js

## The tail

The author used the simplest React architecture as well as the Node.js architecture in the project. The front-end(client) part can be modified through the corresponding files in the page folder, the placement of the images needs to be checked, as the author forgot to restructure it. The back-end(server) part is recommended to continue optimizing and use professional databases such as SQL Server, NoSQL, etc. to manage multiple stories and chapters.

Due to the limited time of the author, it is difficult to achieve perfection. However, the code part of the project still has something to offer.

## Related Links

- Format conversion: <https://products.aspose.app/cells/conversion/excel-to-json>
- Figma: <https://www.figma.com/file/xthpt9poQJuW4qmPFIEgnV/eDU-robot?node-id=0%3A1>
- Github: <https://github.com/roborn-dev/edu-english-evaluation>

# EduHK 專案部署指南

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中文版為草稿，請流覽英文版。本專案是關於一個基於 Web 的教育軟體提供的技術文檔支援，該專案由 3 部分組成：前端部分使用了 React.js，後端部分使用了 Node.js，並使用.xlsx 轉.json 進行管理。

專案開發時長為 4 個月零 10 天。根據人工智慧 ChatGPT 的建議，完善文檔的時間應約為專案開發時間的 20%-30%。而本文撰寫時間僅為 1-2 天。因此作者重點講述部署的部分，對於功能部分僅為開發者提供代碼注釋。

## 前端

前端部分目錄位於 client 資料夾，其中的 page 資料夾中有 6 個.js 檔，實現了頁面的主要功能。animation 資料夾中的.js 檔，作者使用 SVG 格式實現以資料庫的方法展示角色動畫。

因此，如果需要更改角色動畫，非技術人員需要進行以下步驟：

1. 打開檔，按照之前的格式將需要修改的 case 進行修改，按照給定的格式。
2. 將 SVG 檔放在對應的 images 資料夾內。

如果出現錯誤，請檢查以上兩點，包括檔案名、每個 case 的名稱是否有誤。如果問題沒有解決，或者需要功能上的更新/維護，需要軟體發展工程師進行協助。

## 後端

在根目錄下，server.js 包含了後端的主要功能，通過調用.json 檔，使得前端展示內容（“三隻小豬”）。以 dataset\_hearStory.xlsx 為例，章節需要根據左下角 Sheet 進行劃分（功能待開發），每個章節包含幾個要素（內容由@分開），並簡要解釋各部分的用途，便於技術人員及非技術人員理解：

- 場景編號（scene）
- 字幕（content）
- 場景背景（background）：與 images 資料夾中背景的檔案名一致
- 場景角色（character）：與 images 資料夾中角色的檔案名一致
- 角色動效（character\_with\_animation）：該項控制了哪個角色會動
- 角色動效 2（character\_emotion）：每個角色有多種表情，該項控制了角色的表情
- 角色位置（character\_position）：與 Figma 中角色在 1080P 畫布內的位置一致。
- 角色尺寸（character\_size）：與 Figma 中角色在 1080P 畫布內的尺寸一致。
- 講述人（character\_with\_audio）：與 images 資料夾中講述人圖示的檔案名一致
- 音效（audio）：與 audio 資料夾中音效的檔案名一致

因此，如果需要更改故事情節或修改故事內容，非技術人員需要進行以下步驟：

1. 將角色、背景、講述人、音效的檔妥善命名並放置在對應的資料夾中
2. 找到 **dataset** 資料夾，然後以先前的格式，對其中的 **excel** 檔進行修改。
3. 將 **dataset** 檔轉換成 **.json** 格式（推薦工具：  
<https://products.aspose.app/cells/conversion/excel-to-json>）

如果出現錯誤，請檢查第二步填寫的字元格式是否有誤，第三步轉換的 **.json** 檔案名是否有誤。如果問題沒有解決，需要軟體發展工程師進行協助（本例中對應檔為 **story mode 1&2.js**）。

## 總結

該專案使用了最簡單的 **React** 架構，可以通過 **page** 資料夾內對應的檔進行前端部分的修改，因為有大量需要注意的細節在第一階段已經完成。對於後端以及包含的資料庫部分，因作者時間有限，僅採用了最基本的方案，因此建議對該部分繼續優化，使用 **SQL Server**, **NoSQL** 等專業資料庫進行管理多個故事及章節。