Scope of Work

Preface:

This document outlines the requirements and specifications of the movie online-quiz project. The goal is to build a multi-user quiz application.

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1. General Goals

The goal of the system can be divided into 2 parts:

1.1 Data Collection

The first goal of the system is to provide a platform for the player to submit the answer to the database.

1.2 Analysis

The second goal of the system is to analysis the data that collected in the data collection parts, so the administrator can adjust the difficulty of the question and hence report the result to the others.

2.0 System

Different user type can access to different functionality and we are going to illustrate the function that they can access.

2.1 User type

In this project, the user type is divided into player and administrator.

The table shows the read/write access levels of each user type:

|  |  |  |
| --- | --- | --- |
|  | Player | Administrator |
| User data | Read | Read/Write |
| Quiz database | No Access | Read/Write |
| Quiz data  (Answering quiz) | Write | Read |
| Individual Statistics/Result  (for own result) | Read | Read/Write |
| Aggregated Statistics/Result  (Mean/Variance/Graph) | Read | Read/Write |

2.2 Backend (Database and Authentication)

2.2.1 Database

In this project, flask application is used for creating the virtual environment and SQLite is used for the database management. The schema should be created before the database implement.

2.2.2 Authentication

On one hand, administrator could be created in the backend. On the other hand, since player can only access to a few tables, login page and verification should be created for the web access. The detail of the login page will be illustrated in the frontend part.

2.3 Frontend

Player and administrator can access to different data, so different pages should be created for accessing different data.

2.3.1 Login page

To separate accessible page for different user, login page is created, and the login page should verify the username and the password.

2.3.2 Register page

For the new player, the register page is created, and the username should be checked with the database that the username has not been used. Password are also been recorded in this page.

2.3.3 Home page

A home page should be created for noticing the user successfully login.

2.3.4 Base page

The base page can extend to the other page and it can keep the consistency for the web app. Hence, the function key can put in it, such as login/logout button, register button, quiz button, result button.

2.3.5 Quiz page for player

The player could pick the quiz from the app, so a parent page of the quiz index should be created to contain the child page of the main quiz.

2.3.6 Quiz page for administrator

The quiz question and answer be editable, so a page should be created for editing the question.

2.3.7 Individual Statistics/Result page

For player and administrator, they can access to the result for single player’s marks.

2.3.8 Aggregated Statistics/Result page

A page should be created containing the aggregated result for every quiz.

3.0 Limits of Scope of work

Due to the COVID-19, the face-to-face meeting is not permitted in the university area, it is a big challenge for the team to hold the meeting regularly. It is a good experiment for the teammates to work as an industry environment that people may work in different place and collaborate with the project. However, the internal team communication may not adapt as fast as the rapid change of the working condition.