Team Name:

I. Members of the Team and Team Name:

Simon

Max

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II. Detailed Description of the Real-World Need or Problem:

We aim to address the need for seamless integration between a cloud database and a Unity game, as well as connecting the Unity game to a website. The problem lies in establishing a robust connection and data exchange between these components. Currently, there is a lack of clear methodologies and resources to achieve this integration efficiently. By solving this problem, we will enable developers to create cloud-based games with synchronized user information and game progress.

III. Type and Nature of the Cloud Solution:

Our proposed solution involves utilizing a cloud database, specifically MySQL, to store user information, game material (such as pictures and words), and game progress. MySQL provides a reliable and scalable option for storing structured data, and it offers various features for managing data integrity and security. By leveraging MySQL as the cloud solution, we can ensure efficient data storage and retrieval for our Unity game.

IV. Methodology and Resources to Complete the Project:

To complete the project, we will follow the following methodology and utilize necessary resources:

Unity Game Development:

a. Develop the game skeleton using Unity as the game engine.

b. Implement a login system using Google accounts for user authentication.

c. Design the game modes, including City or Country.

d. Integrate the game with the cloud database by establishing connections and retrieving user information and game levels.

e. Develop the game logic and mechanics to display the chosen game level.

f. Implement the functionality to submit the user's progress and update the cloud database accordingly.

Website Development:

a. Utilize HTML5 and CSS3 to develop a website.

b. Create a user interface for users to interact with the game and access their accounts.

c. Connect the website to the Unity game by establishing a communication channel for data exchange.

d. Display the game on the website by embedding the Unity game.

Cloud Database Integration:

a. Set up a MySQL database on a cloud hosting provider.

b. Design and implement the necessary database schema to store user information, game material, and progress.

c. Establish a secure connection between the Unity game and the cloud database.

d. Develop API endpoints or use appropriate database connectors to enable data exchange between the Unity game and the database.

V. Expected Outcome and Results:

By the end of the project, we expect to have a fully functional Unity game connected to a cloud database, with seamless integration between the game and a website. The expected outcomes and results include:

Successful implementation of a login system using Google accounts for user authentication.

Ability to retrieve user information and game levels from the cloud database.

Displaying the chosen game level within the Unity game.

Seamless communication between the Unity game and the website.

Secure storage and retrieval of user information, game material, and progress in the cloud database.

A comprehensive documentation detailing the integration process, methodologies, and resources used.

By solving the problem of connecting the database to Unity and Unity game to a website, our project will empower game developers to leverage cloud solutions efficiently, enabling the creation of engaging and synchronized gaming experiences for users.