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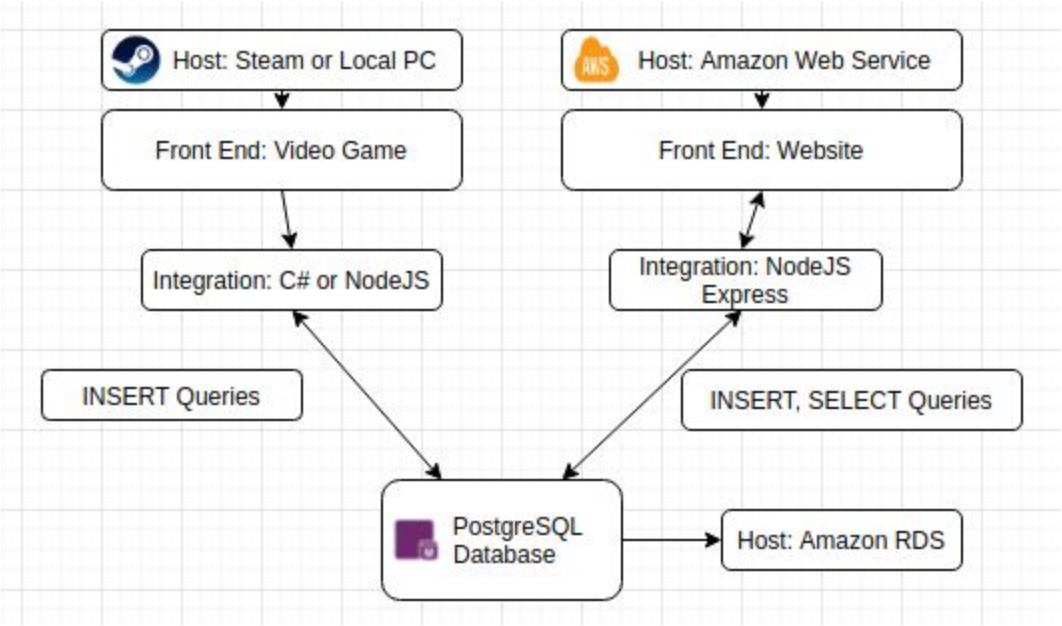
Team 105-1
03/26/2020

Updated Features List:

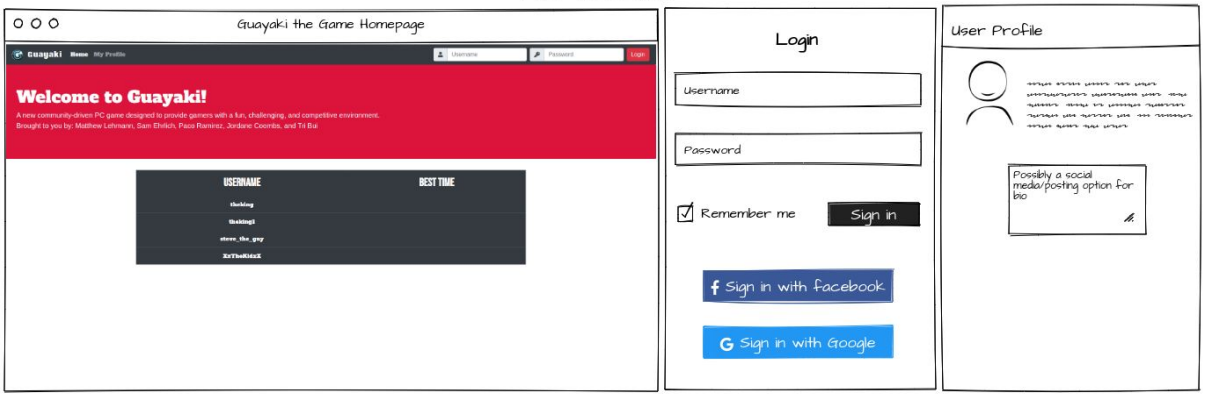
- Game interface: This will include a third person 3-D view of the player model as the player's ball moves along the obstacle course. This GUI will include menus, options, settings, timer, ball object, and obstacle course.
    - Update: The player object is now a spacecraft and the obstacle course has turned into a much more complex structure than initially planned since Unity makes it relatively easy to do so
- Online database for the highest scores: This database will host a global leader board for people who play the game.
    - Update: This database will now also store the user account information for each person who signs up. Meaning there will not be two separate database tables for usernames and passwords and usernames and high scores
- Social Website: This will give people who play the game the ability to share their best runs - Update: Priority shifted up
- Account Registration within the website: This will provide players with the opportunity to keep an online account for communicating with other players - Update: Priority shifted up
- Unity game development engine: Ray tracing for high quality rendering of the obstacle course and player object with intuitive game development tools
- Video Recording: Give the player the option to share their run on the obstacle course on the game website
    - Update: This feature will most likely be removed as the need to develop the integration layer of the project becomes the main focus
- Downloadable on steam or other marketplace: The game will be contained within an application that can be deployed on an application store

Architecture Diagram:



Front End Design Wireframe:

THE WEBSITE:



THE GAME:

Web Service Design:

Web Service: Amazon Web Services (AWS)

- Option 1: Amazon EC2 API allows you to setup and host Linux/Unix and Windows server instances within Amazon's data centers. This would provide the means to have dynamic javascript pages for the website and a means to connect to the RDS database
- Option 2: Amazon S3 API allows for static website page development. This could still be an option so long as we still have access to the RDS database storage
    - Both of these options have a free tier that will result in the hosting being free until the website exceeds the allocated server costs determined by Amazon. We however will not expect hundreds, let alone, thousands of visits on the website per day so this should not be an issue
- Database: Amazon RDS API specifically designed for operating with PostgreSQL databases

Database Design:

- We will be using PostgreSQL for the database
- Types of data:
    - User's username: Char(30) type that should allows users an ample amount of characters to make a username
    - User's password: Char(30) type that will provide users enough space to make secure passwords
    - User's best score: Time tye that will provide the user's best run on the Guayaki obstacle course