Quiz Quest Description Summary

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Introduction:

Quiz Quest is a location-based mobile game that enable the user to have fun while learning. The purpose of this game is motivate users to travel to variety of places to learn more about the history and interesting new facts about those places. This game is generally targeted toward all ages. Anyone that have a passion for trivia quizzes would find themselves indulge in Quiz Quest. The objective of this game is to answer quiz questions at famous landmarks. By doing so, the users will learn new things about the world around them.

Requirements:

Quiz Quest will have many different requirements that must be met before, during, and after the time of launch. There are 8 main use cases at the current time of development, Register New User, Login Existing User, View the Leaderboard, View Quiz Locations, Take Quiz, View Quiz History, and View User Shop. We have detailed uses case diagrams for all of these examples in our design document. Since Quiz Quest is a simple, yet fun and interactive game there are only five functional requirements. The system must really allow users to find and take quizzes as well as store information about the user such as account authorization information and their overall score they have accumulated while playing Quiz Quest. The game map is a core feature of Quiz Quest and the game would not be playable without it, luckily the map data is being outsourced to Google Maps as we will be using their API for the backend of our game world.

There will be 2 databases that Quiz Quest will host and manage, the User and Question databases. The will be secured and monitored by Quiz Quest. The location is provided to us from the user's GPS on their mobile devices and the Map data is managed and owned by the Google Maps team.

The performance of Quiz Quest will be highly monitored and altered in the case where it doesn't meet our standards. Since we want users to quickly open the game when they're at a location, answer a quiz, and then continue on with their day we will have a lot of speed and latency requirements. The Splash screen should load immediately once the game is launched. The Login process should not take more than 300 milliseconds. New screens and windows must be loaded with in 2 seconds and will timeout if the response is longer than 5 seconds. Not only is speed one of our performance requirements but we also want Quiz Quest to be highly precise and accurate. All mobile devices using this game must have GPS 2.0. • The system should try it's best to accurately measure and display the user's positon relative to the map, however there will be limitations due to how accurate the GPS is and other external factors. We also want a large concurrent user base playing Quiz Quest so, the server(s) must handle at least 1,000 concurrent users at once.

We would also like to keep our company, Quiz Quest LLC, in a good light with the public so we are also strict with our dependability requirements. We take extra

precautions so that User information such as their account, shall not be lost in the case of a system failure. We make sure that maintenance must be done periodically to the system. Safety while playing Quiz Quest is also an issue so we encourage that the user should not put themselves in any harm or engage in describe behavior while traveling to other Quiz Locations.

Test Plan:

Since Quiz Quest wants to offer the highest quality of educational quiz game experience we take our quality assurance tests very seriously. We take our testing very seriously but since Quiz Quest is a very simple game we only have twelve test cases, since the number of test cases are so low we make sure we accurately execute them. We test that a new user can register, a returning user can login, testing various UI interactions, how responsive is the map and GPS, testing the game status for Users, testing whether or not the correct quiz questions are being populated at that specific Quiz Location, if the purchases the user made are being stored correctly, if there are delays in the system, if the fatigue system for users is working correctly, if the map renders properly, and if the difficulty system for questions is working.

We will try to test our speed requirements as well but there are some factors that are out of the control of Quiz Quest LLC, like the user's internet connect or mobile device processing power, that we cannot control and will not take in account for when we perform our tests.

Design and Subsystems:

There will be several interfaces. Some of them include:

- User – Player, Location_Owner, Q_Q_Admin
- Quiz Location – Name, Owner, Quiz, Facts
- Support – Local Support, Legal Support, Maintenance

There can be three types of Users. Players, are users who are players of the game. Location_Owner, are the business users who own Quiz Locations. Q_Q_Admin, are game administrators who work for Quiz Quest LLC, these users can have full access to the system.

The Quiz Location will have a lot of details about them. The Name is the name of the location. The Owner is the owner of the location. The Quiz is the quiz you take at that location. The Facts are some fun fact(s) about that location.

There will be three main support teams. Local support is your typical customer service team to help Players and Location_Owners with their issues. Legal Support is to cover any legal issues that Quiz Quest LLC might face. Maintenance is our Dev team + System Architecture team.