Guerre Géo
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Overview

Guerre Géo is an educational and adventurous multi-player game which generates interesting puzzles and trivia questions based on the location of the user. Guerre Géo is primarily a mobile-based application, supported by iOS and Android. It involves geo-caching, which collects the user's location information to generate challenges for the user, based on various locations in Chicago (that the user visits).

Guerre Géo defines a new way of challenging one's geographic knowledge and puzzle-solving skills. Guerre Géo's approach is to make users more motivated to be physically active. By providing trivia at hotspots around Chicago, challenging users with questions and puzzles (about Chicago's geography and location history), and allowing users to compete with others in different teams, Guerre Géo provides multiple ways for users to get out and start walking.

How to Play

Once the users register for the game, the player can choose between two teams: Warriors or Bandits. Warriors would be the "good guys" and the Bandits would be the "bad Guys". Each player can then collect points by solving the challenges present at various locations around Chicago. For each successful mystery solved, players not only add points to their personal account but also for the team that they belong to. These points earned will be known as Coins. Each location asks trivia based off the team of the user. For example, if the user is a Warrior, they will get trivia about positive topics (awards, success, etc). On the other hand, if the player is a Bandit, they will get trivia about more negative topics (dictators, crime, etc). In addition, there will be specific locations, known as "Hotspots" where the player can solve a tough clue and if they get it correct, the user can choose one of two actions: collect a gem that can benefit the player in some way or the player can switch teams and transfer their coins and strength.

Moreover, when two players are in the same location, the players from the opposite teams can challenge and beat each other by solving puzzles/trivia questions, which are also based on the location where the two contenders request challenge. In addition to this, in the case when one of the players wins the challenge, apart from collecting new coins, the winning player earns points from the losing player; that is, the coins will be deducted from the losing player's account and added to the winning player's account. The criteria of the coin's distribution is not decided yet; however we know how the flow of coins will take place throughout the game. Thus, the main purpose of the game is to collect as many coins as possible without losing coins in challenges. The winning amount of coins is yet to be decided.

Scope

Furthermore, to keep record of the success of the game, certain measurements will also be maintained. For instance, the game's popularity will be measured by the number of downloads from the Google Play Store and Apple App Store. Also, to measure if people are actually making an effort to visit hotspot places, we track the number of coins collected by users. Furthermore, we will keep track of users' age groups. This will help us determine the age groups that are more interested in the game. The demographics will help with targeted advertising so the company can generate revenue. The statistics can help us improve the application and continually keep capturing a larger audience.

Currently, there are many mobile games which involve battling with users or solving puzzles, such as Candy Crush, Pokémon Go and involve geocaching; however, Guerre Géo is a combination of both mental and physical challenges as it will not only make the users more active by walking around Chicago to find hotspot for challenges, but it will also educate them about Chicago's geography and history. Guerre Géo comes in

a much bigger bundle from other apps as it brings excitement of winning the battle along with solving puzzles around Chicago.

Stakeholders
The ideal customer-base for Guerre Géo will be teenagers and young adults from the ages 14-25. As this is a trivia-based game, some questions may be more difficult to answer for any age group younger than the specified range. Furthermore, though the age range's maximum target is set to 25, anyone that is motivated to learn and be physically active is the ideal customer.

To make this application, we will need a team of Software Developers to make the UI, maintain the database, and make improvements. We will also need Testers to monitor bugs that users may encounter. We will need a Marketing team that will promote Guerre Géo to customers, as well as bigger buyers/companies. And finally, we will need a Legal team to handle any legal disputes and matters related to the game. The total cost would be around $80, 000 (USD) assuming no extra costs during production.

Constraints
Since the purpose of Guerre Géo is to get users to move and learn about their surroundings, the constraints on the environment would be that any public place is open as long it is not private property, religious site, requires a security clearance site, or unreachable by mankind site. Private property and religious sites will have the clue somewhere around the perimeter of the site, not inside the location. As for business establishments, user can have clues inside of buildings as long it is in the lobby and not require clearance.

Solution constraints would mostly be that it is a mobile device, have software be Android 4.4 or higher or iOS 8 or higher. The application would need access to the GPS sensor, volume control, the device's power source and be imbedded in settings so the user can edit notification preferences. Also, the app would need to use geographical data and license from a vendor. Since there is a hype for these type of games, the product should be launched quickly but not conflict with the release of another exciting software product. Lastly, budget constraints would the multiple teams and contractors needed for front-end designers, back-end resources, augmented reality specialized teams, data management, app security, marketing (at least 40% of budget), legal processing, payment of employees, and initial around-the-clock hiccup maintenance after the launch.

Requirements
- Android (4.4+) or iOS (8+) mobile device
- Internet connection (Wifi, 3G, 4G)
- Access to GPS and Location settings
- Access to camera, volume control, device settings
- Minimum of 2GB RAM
- Approximately 500MB storage space
- Patent the game idea and sort out royalties if need be
- User chooses to be a Warrior or Bandit, but not both
- Guerre Géo is not responsible for actions of the user
- Advertising on the application to generate revenue for the game