

## **National Parks Builder Project Requirements Summary**

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The game will be primarily used by three groups of people: the player, expert, and national park (refer to diagram in document). The player will be accessing the majority of the content with features such as completing challenges, collecting rewards, expanding their parks, and even giving donations. Meanwhile, the experts will be more dedicated toward creating facts for players on the daily basis to keep them informed. Lastly, national parks can receive donations from players that decide to give through the game. For the product use cases, there are nine that are highlighted. First, users will be able to collect their rewards once they log in. The second and third use cases would be that a player can receive challenges and complete challenges to create progress throughout the game. The fourth and fifth use cases are players being able to send donations to organizations dedicated to preserving national parks, and the charities being able to receive these donations as well. Sixth, a player would be able to expand their national park to increase the size of their park. The seventh and eighth revolve around experts being able to inform the player by sending them daily facts, which can bring new insight on parks for the users. Finally, a player would be able to use the product to build units in the park, such as any essential buildings or any sort of customization.

In the next section, there are a few functional requirements for this application to be successful. The first requirement that is expected is for the player to be consistently rewarded, mainly for their daily logins. As a result, this would keep players motivated to continue playing due to their want to collect these rewards. These rewards can consist of anything to currency or exclusive items. Offering these rewards can ensure continued play and longevity, which can make the game run for a decent amount of time. In order for this feature to work the game must be able to track the players progress (their accomplishments, how long they've played, etc) to make sure they receive rewards that are appropriate to their dedication. Furthermore, the player should always be challenged as they play the game. To do that, a requirement for the game is that challenges should be displayed to the player for them to complete. As a result, this would allow a player to always have something to do. To make sure the game fulfills this requirement, the game must be able to generate new challenges that would be fun and engaging.

There are also some data requirements for the game to be successful. The first is that the game is able to track a user's donation history. The main idea behind this is that a player who donates would be able to see how they donate to organizations and be able to access receipts. This requirement would be met if the game ensures it saves a player's transaction history successfully. Second, another requirement is to be able to verify facts so that players aren't misled by any false information. We would need to test the software and make sure it can distinguish if a piece of information is reliable or not to make sure if the requirement is met. Lastly, the game should be able to keep track of the currency an account holds for the user so they can buy units for their parks. To ensure this requirement is met, the game should be able to accurately count the currency a user has.

For the performance requirement, our main concern is that the games run smoothly for the user and in a quick manner. We don't want to waste the user's time by waiting for loading screens.

We want the game to be easily readable and have the option of picking their specific language. As for dependability requirements, we want users to have access 24/7 and can rely on the server to not lose their data. It can be played in offline mode with limited features. We care about the user's health as well and will ensure that this application won't overheat the user's device. Scheduled maintenance will take place when needed and users will be updated through the app and via a push notification. Our goal is to do it at the time when the user population is usually at its lowest. We will make ourselves easily accessible for help and support through a twitter page and user forum. It's essential that this application runs on all modern devices and tablets along with having both android and apple support. We want this server to hold an uncapped amount of users. Lastly, this application will continue to run as long as there is an active user population.

Overall in our application, the security requirements needed should be able to protect the users private information, possibly utilizing third party security applications. This is essential, as the customers need to know that their private information and integrity is protected from malicious attacks. If certain policies regarding the application change which could affect the customers data, it is the responsibility of the company to immediately notify the customer of what is currently happening. The application will also have audits a few times throughout the year, to ensure everything is up to date, and to optimize the gameplay with multiple functionality tests to ensure everything is running smoothly. We also want third party applications to encrypt all personal and important data, to ensure the application will not have any unauthorized packets being set. The application will also be usable in different languages, and created so that the actual gameplays usability is just dragging and clicking. If the user has any questions regarding the game, there will be constant tutorials in the beginning, and the objective will always be placed within the options menu. This will give the user the ability to always understand what they need to be doing within the game.

The main application will be played using a mobile device, so it's important that the user has enough storage to be able to properly download and use the game. Furthermore, within the game the user should be able to switch to other national parks as maps, as they will be able to experience other parks, and how they each differ. This will provide a greater learning experience, and will give users the ability to understand how each park has different needs. The application will have a modern feel to similar games of current times, so that it will resemble popular games. This will give more users the incentive to download and try out the game. Furthermore, there will be multiple updates throughout the year to keep the game fresh, constantly trying to add new features which will keep the users engaged.

There is one major cultural requirement involved with the creation of the National Parks Builder. It is important that the game is not involved with religion. Preventing religion from being included in the game, will allow for a greater audience to be involved because this will prevent religious discrimination in atleast the game itself. As for legal requirements, the developers must avoid availability of player information from other players and developers. First, the game should only have data members for a username and password for a player in terms of personal information. Second, a developer should not be able to access login information from other players in order to avoid any harm to the user. For Standards Requirements, it is important for the game to be able fight against DDos attacks in order to ensure that the game does not crash.