



COC SRS - SRS on clash of clan

Software Engineering (Lovely Professional University)



LOVELY
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(CSE 320)

System Requirements Specification (SRS)



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INTRODUCTION

1.1 Purpose

The document describes the software requirement for an android based arcade game clash of clans. It is intended for designer developer and maintainer of the application.

1.2 Scope

The function of this application is to provide a user with a really great fun experience while playing this game. In this the user can connect to internet to access the full features of the game. where the user can collaborate or compete against each other through various interfaces provided with in the application.

1.3 Overview

This document contains several sections the section 2 contains general description and the section three contains functional requirements, non-functional requirements, external interface and performance requirements for the COC Application.

1.4 Definitions

1.4.1 Account

The user when first runs the application it asks for account creation for user need to select a google account or the account which he or she is using for play store. It then sings you up to google games account and now the user us asked to enter a valid username with which he or she will be recognized over the COC network.

1.4.2 User

It is the person who has installed the application on his or her device to play the game and be part of the COC network to play the game online and compete with each other.

1.4.3 COC (CALSH OF CLANS)

It is the application developed for gamming purpose where the user can do a lot of stuffs from building its own city to fighting against beasts. challenging your own friend over the network for a fight and gain points and collects rewards to reach next level and to be on top of clan's league. The user can also purchase items for its gamming through real time payment. The platform also provides time to time leagues which open for specific time and multiple users can connect to it and play against each other or support each other. The user can even share their resources with other friends over the coc network.

1.4.4 Server

It is at the backend of the application where all the data is stored and manipulated for the best experience for the user.

1.4.5 Network

It is a well-connected system of different servers worldwide which allows users to compete and share each other resources so that user can have a good gaming experience.

1.4.6 In App Purchase

In this application the user can make purchase of different resources by paying some amount for it.

1.4.7 User Interface

It is the client-side interface for the application with which the user deals and makes its moves which pass through several servers throughout the world and give the user the desired result he requested for.

General Description

2.1 Product perspective

The COC application does not run independently it has to collaborate with multiple servers owned by SUPERCELL through which all the functionality of the game is controlled and the user gets desired result as it requested.

2.2 Product function

The application must support the device on which it is installed and must work in sync with the hardware components working on the backend of the application over the network to give the best gaming experience to the user. It has several in app functions such as in app purchase for which it must maintain sync with the software and hardware required for making the payment when user demands. The application must handle all the process very efficiently and manage all the backed process without bothering the user or affecting the functionality of the user device.

2.3 User Characteristics

There are mainly two users for this application.

2.3.1 Customer

The customer or we can say the user interacts with the COC network via COC application. It must be very easy for the user to use the application and perform all the complex tasks without bothering the user. And it should support the system in all possible ways until unless the system meets the minimum requirements to run the application.

2.3.1 Maintainer

It should be very easy to maintain the whole system and the maintainer should only have the permissions to make changes to the application. There can be multiple maintainers depending upon what kind of task is to be performed.

3. Specific Requirements

3.1 Functional Requirements

It can be classified into two the requirements by the user and the requirements by the backend person or we can say the supercell team.

3.1.1 Requirements by the COC application

i) General

➤ Functional requirements 1

Description

User when first opens the application he needs to provide an email for google games an application through which the COC application will be executed on user device.

Input

User needs to enter valid email.

Processing

Check if email is valid or not.

Output

Successful login proceeds to next interface else error message invalid email.

➤ **Functional requirement 2**

Description

Here the user needs to enter a valid username in order to continue with the application.

Input

Initialize the username.

Processing

Checks if username is available or not.

Output

If username available successful creation of account for user to continue with the COC application and proceed to next interface.

➤ **Functional requirement 3**

Description

The device should be connected to any network connect to use internet.

Output

If not connected show message error network connection else continue with the application.

➤ **Functional requirement 4**

Description

If network connection unsuccessful

Output

Terminate the application

➤ **Functional requirement 5**

Description

The coc application needs some permission from user to interact with social media apps available on user device.

Input

Allow COC application to connect to the social media apps. Give all the necessary permissions.

Output

If successful show message successful.

➤ **Functional requirement 6**

Description

If not able to give permissions to the coc application proceed to next interface.

Output

Not able to retrieve social media information

➤ **Functional requirement 7**

Description

The user can buy additional features through online payments to improve his or her gaming experience through inbuilt store in coc application

Input

The user needs to select the item user want to purchase and click on proceed.
Processing Takes the user to payment gateway through external browser.

Output

online payment gateway opens to make the purchase.

➤ **Functional requirement 8**

Description

Here the user needs to select the mode of payment and enter the valid details to continue the payment.

Input

The use needs to select from one of the payment options and enter the valid bank details to proceed forward.

Output

Authenticate the details and proceed to the next interface.

➤ **Functional requirement 9**

Description

If the credential provided are correct the user is taking to the default bank payment gateway and a onetime password is received by the user in order to complete the payment.

Input

Enter the one-time password received.

Output

Show message transaction successful.

➤ **Functional requirement 10**

Description

The user devices need to give feed to the application in order to perform certain task in the application.

Input

The user needs to give input in for of touch tap or drag over the screen to generate some actions.

Processing

The input given by the user is then processed by the sensors of the devices.

Initialize the user device sensors

Output

The user desired outcome is then performed on the coc application interface.

➤ **Functional requirement 11**

Description

The user must be able to communicate with other users who are using coc application in order to share resource of coc application and compete against each other or collaborate with each other.

➤ **Functional requirement 12**

The user should be able to see his or her progress within the game through graphics generated by the application.

Output

User should be provided with stats in numbers and progress bars to show his or her achievements.

➤ **Functional requirement 13**

Description

The user when first starts the application a graphics-oriented start up guide should guide the user through various functions of application. For easy understanding of the application to the user.

Output

The user will be able to understand the application, how it works and how he or she should approach.

➤ **Functional requirement 14**

If a user deletes its account, the database and sever must be notified about it and all the changes made to the database must be saved.

Input

Request to delete account

Process

Request is generated which is send to the server and then the database is updated to the changes made.

Output

Account deleted successfully.3.1.2 Requirements for the Developer side/owner

3.2 External interface requirements

3.2.1 User interface

The interface of the coc application must be very easy to learn and play with compromising with the gaming experience of the user.

3.2.2 Hardware interface

The application must be giving several permissions on the user device for the be.er gaming experience. As the game requires internet connection it should have access to allow use of data order to run the application. The device must full fill the minimum specifications required to run the application on the device

0.5 GB of RAM (1 GB or more recommended)

Screen resolution of 800x480 or more.

3.2.3 Software interface

The device must have an Android OS of version 4.0.3 or higher to run the COC application on the user device

3.2.4 Communication interface

The application requires internet connection to run on a device and to connect with another user over the network.

3.3 Performance requirements

3.3.1 Performance requirement

Messages should be displayed for any successful or unsuccessful action

3.3.2 Performance requirement 2

While performing in app purchase the payment must be secured via encryption and a good payment gateway must be used.

3.3.3 Performance requirement

After every achievement or action completed by user the stats must be updated in real time for better gaming experience.

3.3.4 Performance requirement

In Case of low network coverage message must be displayed to the user.

3.3.5 Performance requirement

The response time between the request made and it being completed must be very less.

3.3.6 Performance requirement

The application must be fast to load over the supported devices

3.4 Attributes

3.4.1 Availability

The application must be available to all the users who so ever wants to use it without any charges.

3.4.2 Security

All the security measure must be provided to user while performing online payment for items through the application in order to maintains user privacy and integrity. When asked for username and email for sign up user data must be kept confidential for security purpose.

3.4.3 Maintainability

The application must be very easy to maintain and only very few people can do this task in order to maintain the integrity of the application.