

Software Requirements Specification

for

gameGuru

Version 2.0 approved

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Revision History

Name	Date	Reason For Changes	Version
SRS for gameGuru	March 21, 2018	Changes in System Features	2

1. Introduction

1.1 Purpose

The SRS will provide a detailed description of the requirements for gameGuru. This SRS will allow for a complete understanding of what is to be expected from the newly introduced system which is to be constructed. The clear understanding of the system and its functionality will allow for the correct software to be developed for the end user and will be used for the development of the further stages of the project.

1.2 Document Conventions

The document is prepared using Google Docs and has used the font type 'Times New Roman'. The font size that has been used to type this document is 14pt for the headings and 11pt for the corresponding body. Standard IEEE template is the template used to recognize the appearance of the document and its flow.

1.3 Intended Audience and Reading Suggestions

This document is made by keeping in mind different types of readers. This document will be useful for different audience in various ways.

Audience	Use
Developers	They will use this document as a guidance for design and implementation phase.
Managers	They will see all the constraints are covered properly. Time and cost is within limits or not.
Marketing Staff	They can use this document to make advertisements for this iOS App because by reading this document they will know what the system will do? How this system is different from others.
User	By reading the SRS they can ensure whether their needs are being met by the App or not.
Testers	They will test the implementation of the project according to the SRS base.
Documentation Writer	They will use this document during the documentation of the project.

1.4 Product Scope

- The System developed will enable the user (customer) to know more about the games he/she wishes to buy.
- It will address shopping related problems.

1.5 References

- IEEE. IEEE Std. 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

2. Overall Description

2.1 Product Perspective

The gameGuru project is a new, self-contained product intended for use on the iOS platform. gameGuru enables us to scan a game using the mobile camera and recognize the game using an Image Recognition engine and finally giving a detailed description of the game which includes an information about the genre, distributor, along with the ratings of the game.

Image recognition, in the context of machine vision, is the ability of software to identify objects, places, people, and actions in images. Computers can use machine vision technologies in combination with a camera and artificial intelligence software to achieve image recognition.

2.2 Product Functions

- Recognize a game using the mobile camera.
- Give a detailed description of the game.

2.3 User Classes and Characteristics

User	Characteristics
System Admin	It will be the system administrator. He will maintain the overall App.
Customer	It includes the people who will view the details of a particular game.

2.4 Operating Environment

gameGuru project is the software application, which will be limited to the Apple's iPhone operating system, iOS, and requires a newer generation of iPhone which can run iOS 7.0 or newer. The application is not resource- or graphics-intensive, so there are no practical hardware constraints. The app will rely on several functionalities built into Apple's API, so ensuring appropriate usage of the API will be a major concern.

2.5 Design and Implementation Constraints

The primary design constraint is the mobile platform. Since the application is designated for mobile handsets, limited screen size and resolution will be a major design consideration. Creating a user interface which is both effective and easily navigable will pose a difficult challenge. Other constraints such as limited memory and processing power are also worth considering.

2.6 User Documentation

- A brochure will be provided describing the functionality of the App.

2.7 Assumptions and Dependencies

- Firebase Database
- Firebase Storage
- It operates on Apple's iPhone operating system, iOS, and requires a newer generation of iPhone which can run iOS 7.0 or newer

(Some of the third-party components are yet mentioned as they can only be decided once the app development begins.)

3. External Interface Requirements

3.1 User Interfaces

The mobile application uses a GUI , firstly there will be an option for a Sign In Page or Sign Up Page where the user enters the Username and Password. In case of Sign In, the Username and Password are verified from the Database and then only the user is allowed to use the software and in case of Sign Up, well-defined Usernames and Passwords are added to the Database.

Then the next is Homepage, where the user can scan the game using the mobile camera and recognize the the game using Image Recognition engine which gives a detailed description of the game which includes an information about the genre, distributor, along with the ratings of the game.

3.2 Hardware Interfaces

- iPhone which can run iOS 7 or later.

3.3 Software Interfaces

- The system should have friendly and reliable Graphical User Interface.
- The system should also have program interfaces for all the functions of the system.

3.4 Communications Interfaces

The Communication Network must have:

- Fast and reliable network medium.
- Secure protocols.

3.5 IDE Interfaces

- Xcode Version 9.2 (9C40b)
- Swift 3 or Above

4. System Features

4.1 Sign In

Use Case Name	Sign In
Actor	User
Overview	This use case is about how the user will sign in to app.
Pre-condition	(1) The internet connection is working. Server is not down. (2) User already sign up for the app.
Post-condition	User successfully sign in.

Typical Course Of Events

Actor Action	System Response
User request for sign in page	App will generate the page.
User will fill the required fields	App will check whether the fields are correctly filled or not.

Alternate Course Of Events

Actor Action	System Response
The user filled unformatted information	App gives error message.

4.2 Sign Up

Use Case Name	Sign Up
Actor	User
Overview	This use case is about how the user will sign up to app.
Pre-condition	The internet connection is working. Server is not down.
Post-condition	User successfully sign up.

Typical Course Of Events

Actor Action	System Response
User request for sign in page	App will generate the page.
User will fill the required fields	App will add the details to the database.

Alternate Course Of Events

Actor Action	System Response
The user filled unformatted information	App gives error message.

4.3 Game Scanning

Use Case Name	Game Scanning
Actor	User
Overview	This use case is about scanning a game.
Pre-condition	The user must login to the App.
Post-condition	Game is scanned and a game title is returned.

Typical Course Of Events

Actor Action	System Response
Login to the App	Confirm Login.
Scan the Game	Game title is returned.

Alternate Course Of Events

Actor Action	System Response
Game Not present in the database	App gives error message.

4.4 Game Description

Use Case Name	Game Description
Actor	User
Overview	This use case gives detailed description of the game.
Pre-condition	(1) The user must login to the App. (2) The user must scan the game.
Post-condition	Detailed information about the game is received.

Typical Course Of Events

Actor Action	System Response
Login to the App	Confirm Login.
Scan the Game	Game title is returned.
Game Information	Detailed information about the game is received.

5. Other Nonfunctional Requirements

5.1 Performance Requirements

- Data in the database should be updated within 2 seconds.
- Query results must return within 5 seconds.
- Login Validation should be done within 3 seconds.
- Login Validation should be done within 3 seconds.

5.2 Safety Requirements

- Under failure, system should be able to come back at normal operation in one or two hours.

5.3 Security Requirements

- All external communications between the data's server and client must be encrypted.
- All data must be stored and protected.

5.4 Software Quality Attributes

- The App is easy to use.
- All the features present in the App are easy to locate.

- The App uses simple English so that the user does not get confused with the terms.
- The App can easily be upgraded.

5.5 Business Rules

- System Admin - It will be the system administrator. He will maintain the overall App.
- Customer - It includes the people who will view the details of a particular game.

6. Other Requirements

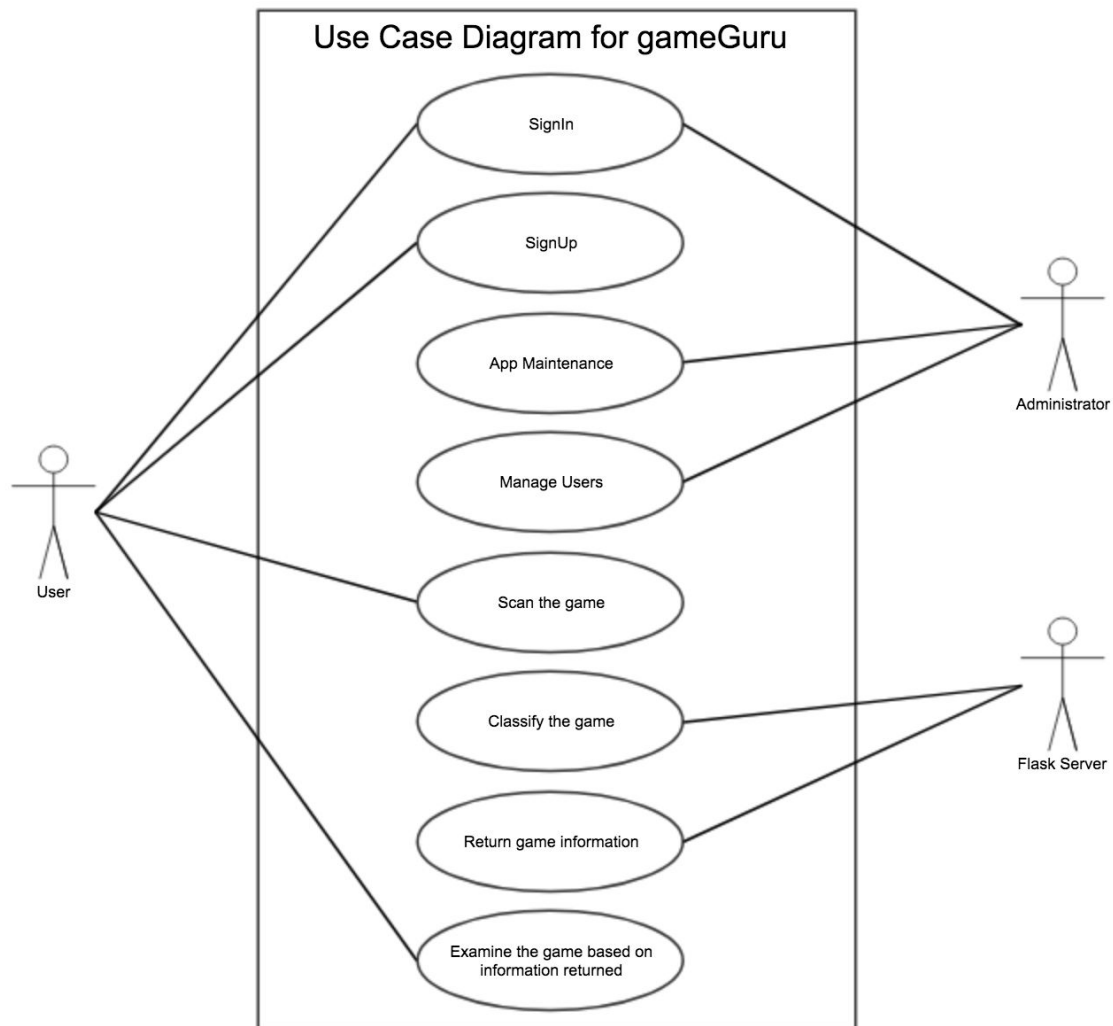
Currently there are no other known requirements for the project. However this may change in the event of unforeseen circumstances encountered during the duration of the project.

Appendix A: Glossary

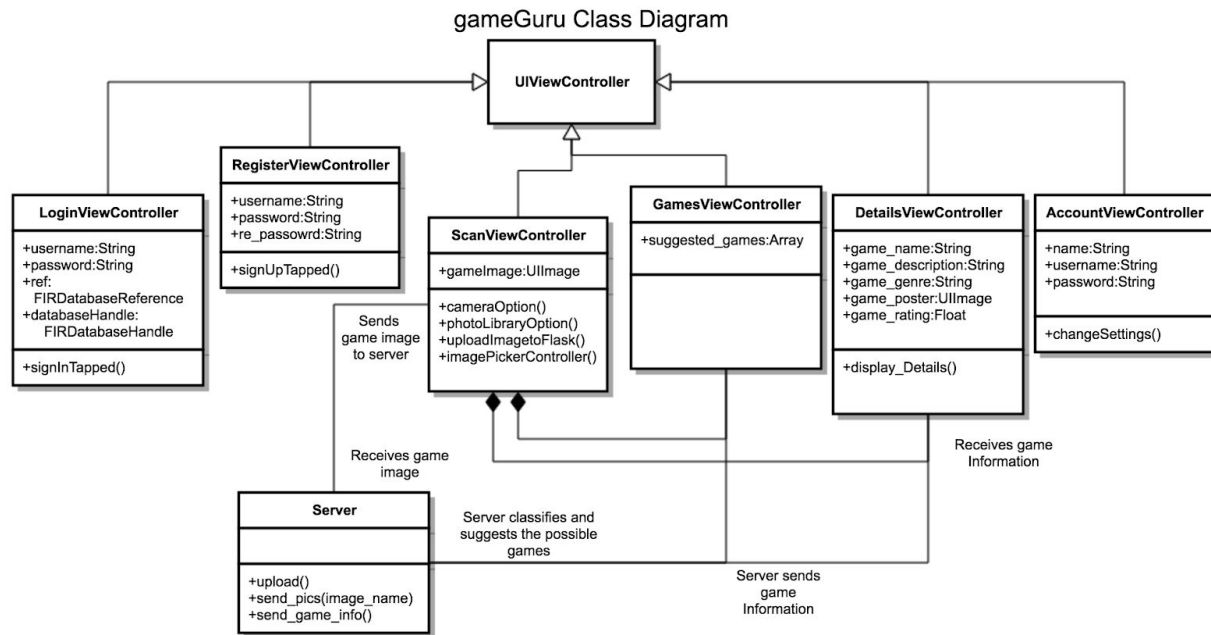
Term	Description
SRS	Software Requirements Specification
IEEE	Institute of Electrical and Electronics Engineers
User/Customer	Person using the App.
iOS	iPhone Operating System
API	Application Program Interface
GUI	Graphical User Interface
IDE	Integrated Development Environment

Appendix B: Analysis Models

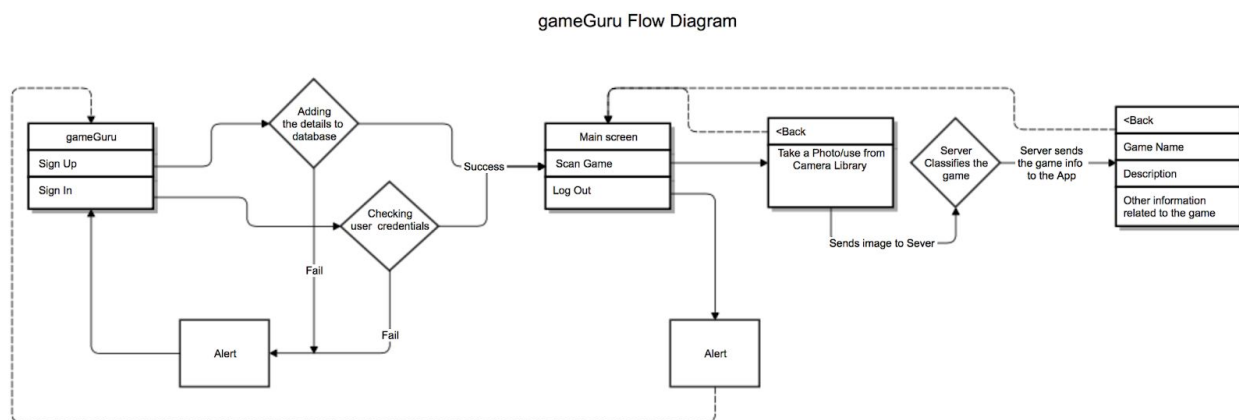
B.1 Use Case Diagram



B.2 Class Diagram

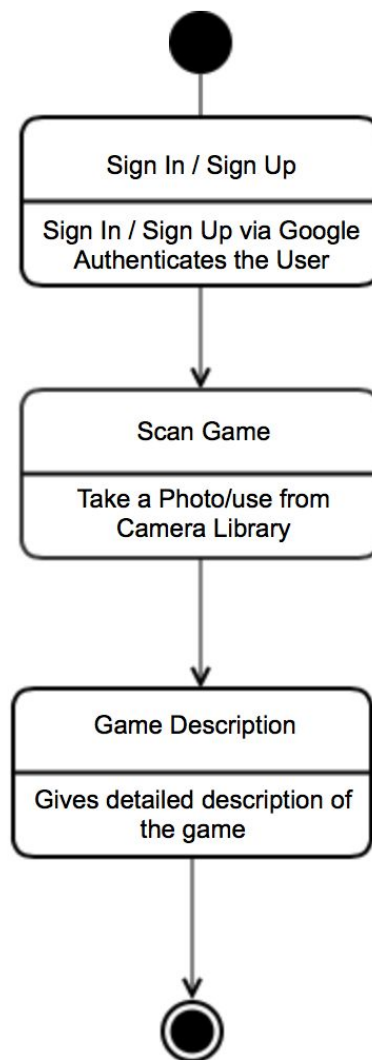


B.3 Flow Diagram



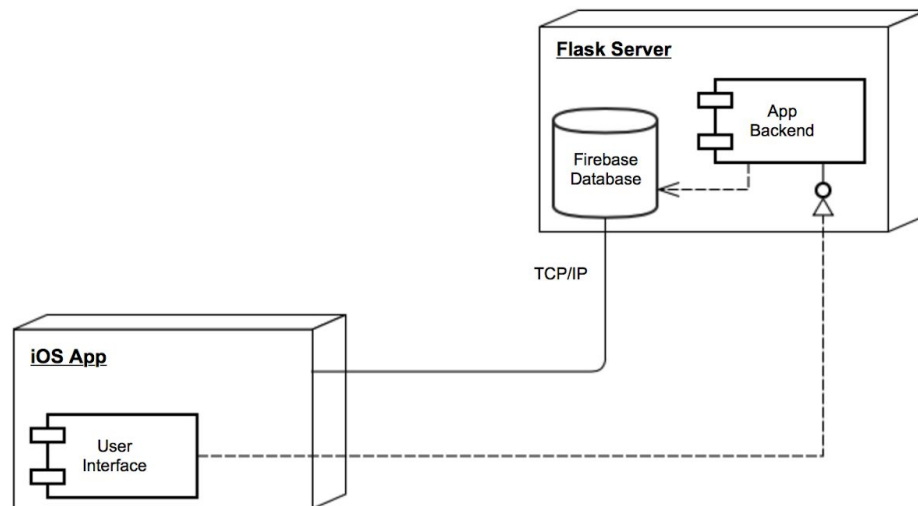
B.4 State Diagram

gameGuru State Diagram



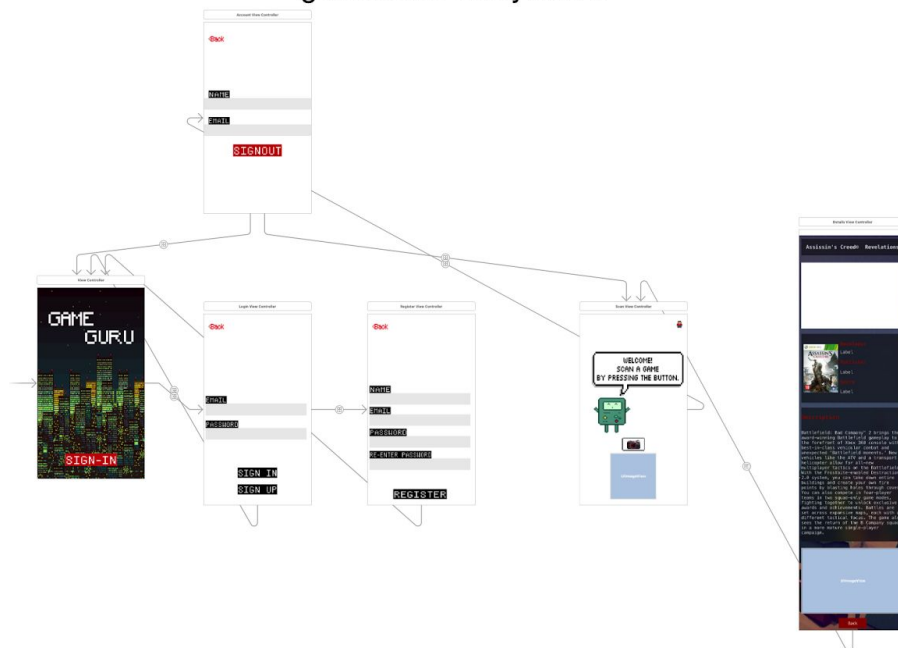
B.5 Deployment Diagram

gameGuru Deployment Diagram



B.6 Storyboard

gameGuru Storyboard



Appendix C: To Be Determined List

6 - Other Requirements