Lahore Garrison University
Dept. of Software Engineering

Assignment-02
Software Requirement Engineering
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World Cricket Simulator

1   Introduction

1.1   Purpose

This Product is extremely good for playing cricket game. It provides multiplayer, quick match, profile options. You can play real world cricket in this game virtually.

The game contains exceptional graphics. You get three interfaces in the game which are quick match, starting, multiplayer. With all having effective contrasting colors which makes the interface look exceptional. Furthermore, there are sub-interfaces with exceptional graphics in every main interface.

But considering the previous apps this app is specifically designed in a way to provide the best it could do. The main thing is the movement controls are exceptionally well and jumping and running and playing is like you have become virtual are this is your new world. Likewise, the successor of Cricket 07 it is much better in providing the graphical, grammatical mistakes that were in it. That game was flopped due to its un-richness in the graphics but that was something that could be dealt with by using a graphic card but the main problem was that the game functionality was not so good and the names of player and teams were not accurate. And the main problem was that the game was developed in the place where cricket was not so much famous so these were some of the main reasons that made it to flop.

This Software Requirement Specification(SRS) document is intended to give the complete overview of the World Cricket Simulator. Including the game mechanics, user-interface and story. The SRS document details all feature upon which WCS have currently decided with reference to the manner and importance of implementation. WCS is a cricket simulation game designed specifically for cricketing audience to get real world cricket experience in a game.

1.2   Document Conventions

As the development team is responsible the Software Requirement Specification(SRS). No ambiguity arises from the usage of World Cricket Simulator(WCS). There is a clear distinction between the use of user and the words "player" and "character". The "player" is actually the human being interacting with the WCS in real world while "character" is the in-game avatar that is being manipulated and controlled by the "player". The document is also printed on double A4 paper in Calibri(Body) font. With normal black 12 size while section Heading are bolded 18 white against green background. Subheading are bolded size 14 white upon green background and if there are Third Subheading they would be sized 13 bolded with white against green background.

1.3   Intended Audience and Reading Suggestions

This SRS document focuses specifically on giving the Testers and Project Manager the adherence of the game in original vision. Although the document has to be read completely in order to get

the complete understanding of the project. The specific parts of the document can be read in order to know about the specific actions. To get the overall knowledge of the project the Overall Description could be read so that the concept could be cleared regarding the game. Readers interested in the Gameplay-interface and navigation between different front end could see the Interface requirements. Technical standards to which the team will hold the project are discussed in the Non-Functional requirements part. System features could be read in order to know about the interaction between the user and the game.

1.4   Product Scope

World Cricket Stimulator is a basic Android Telephone game that calls upon you to skip a block up through a labyrinth of entryways while staying away from deterrents that are set reroute. World Cricket Stimulator likewise requires a little persistence and timing; generally, the game could make you insane. Accessible for low-memory gadgets, World Cricket Stimulator is a fun game to have in your library for those events you really want a little assistance sitting back. WCS is a cricket simulation game designed specifically for cricketing audience to get real world cricket experience in a game. In short if you are looking for a game that brings out the firing bowler or batter in you, because WCS has delivered more than what you can expect from this game. It delivers a great challenge for bowlers and batters as presented in the slick and innovative title.

World Cricket Stimulator fundamental menu is insignificant by plan with two gaming modes accessible and a choice to rate the game in the Google Play Store. The two it is Simple and difficult to game modes. The vital distinction in these two modes is the size of the gateway you need to skip your block through. Controlling your block (which seems as though a dark precious stone) is finished by tapping the left or right half of the screen. Tapping the left side bobs the block upwards to the left and tapping the right will send the block upwards to the right. Taping these taps perfectly and your block will move upwards in a fairly straight bearing.

The labyrinth you explore through will have open entryways in the strong lines/walls that you should go your block through. You will likewise have blocks put in between the walls that you should keep away from. Contact with any of the impediments of walls will end the game

1.5   Cocomo Model:

1.5.1   Effort:

E=a(KLOC)^b

E=2.4(100) ^1.05

E=2.4*125.89

E=302.136

1.5.2   Project Duration:

TDEV=c(E) ^d

TDEV= 2.5(302.136) ^0.38

TDEV=2.5*8.7

TDEV=21.84

1.5.3 Productivity:

P=Size/E = KLOC/[staff-months]

P= 100/ [12-4]

P = 800

1.5.4 Intermediate:
E= a(KLOC)^b*c

302.13= 2.4(100) ^1.05*c   => C=1

1.6 References:
1. Use Case for the Cricket Match scenario and how it will be played.
2. https://d3i71xaburhd42.cloudfront.net/4fc5b8dec6ee0281a63c75f93e4a040464e52c2a/5-Figure6-1.png
3. Style guides for user-interface and title pages.
4. https://dribbble.com/shots/7176127-Live-Cricket-Streaming
5. Game-Play interface should be like.
6. https://thumbs.gfycat.com/PresentImpracticalInchworm-size_restricted.gif
7. Login and Signup Page.
8. https://dribbble.com/shots/16753965-Login-Sign-up-Dark-Mode-AW-Universal-Page
9. Sponsorship example report
10. https://www.slideteam.net/cricket-game-sponsorship-proposal-example-document-report-doc-pdf-ppt.html

2 Overall Description:

2.1 Product Perspective:
World Cricket Simulator is a sports simulation video game that provides an immersive and realistic experience for cricket fans. The game offers a variety of modes, including tournament, league, and quick play, allowing players to choose their preferred way of playing. With detailed graphics and realistic animations, the game captures the essence of the sport, making it feel like a real match. The controls are intuitive and easy to learn, allowing players to quickly start playing and enjoying the game. In addition, the game features a large selection of teams and players from around the world, ensuring that there is something for every cricket fan. With its engaging gameplay, challenging AI opponents, and wide range of features, World Cricket Simulator is the ultimate cricket gaming experience.

2.2   Product Function:

The main functions of World Cricket Simulator are to simulate the experience of playing cricket, allowing players to control their favorite teams and players in various game modes. Some key features include:

➢ Realistic graphics and animations that bring the sport to life
➢ A variety of game modes including tournament, league, and quick play
➢ A large selection of teams and players from around the world
➢ Intuitive controls that are easy to learn
➢ Challenging AI opponents that provide a test of skill
➢ Engaging and immersive gameplay that captures the essence of the sport.

These features combine to create an enjoyable and authentic cricket experience for players, providing hours of entertainment and fun.

2.3   Functional Features:

The functional features of World Cricket Simulator include:

➢ **Game Modes:**

The game offers several game modes including tournament, league, and quick play, giving players the flexibility to choose their preferred way of playing.

➢ **Realistic Graphics and Animations:**

The game features detailed graphics and animations that capture the essence of the sport and make it feel like a real match.

➢ **Intuitive Controls:**

The controls are designed to be easy to learn and use, allowing players to quickly get started and start playing.

➢ **Wide Selection of Teams and Players:**

The game includes a large selection of teams and players from around the world, ensuring that there is something for every cricket fan.

➢ **Challenging AI Opponents:**

The game features challenging AI opponents that provide a test of skill and make each game an exciting challenge.

➢ **Immersive Gameplay:**

With its engaging gameplay and realistic simulation of the sport, World Cricket Simulator provides an immersive experience that captures the excitement of cricket.

These functional features make World Cricket Simulator a complete and enjoyable cricket gaming experience for players.

2.4   User Classes and Characteristics:

The user classes and characteristics for World Cricket Simulator are as follows:

> **Cricket Fans:**

The primary user class for World Cricket Simulator is cricket fans who enjoy playing and watching the sport. They are typically interested in experiencing the excitement of playing cricket in a virtual environment.

> **Sports Gamers:**

The game is also aimed at sports gamers who enjoy playing simulation-style video games. These users are looking for a fun and challenging experience that simulates the sport of cricket.

> **Casual Gamers:**

Casual gamers who enjoy sports or simulation games may also be interested in World Cricket Simulator. They are looking for a fun and accessible game that is easy to play and provides a good level of challenge.

The characteristics of these user classes include:

> An interest in cricket or sports in general
> A desire for an immersive and realistic simulation of the sport
> A desire for challenging gameplay
> A willingness to learn the controls and mechanics of the game
> A desire for a fun and entertaining gaming experience.

2.5   Operating Environment:

The operating environment for World Cricket Simulator is a personal computer or gaming console with specific hardware and software requirements. The game can be played on Windows, Mac, or Linux operating systems. In terms of hardware requirements, the game requires a recent model computer or gaming console with a dedicated graphics card and sufficient memory and storage. The game also requires an internet connection for online play and to download updates. In addition, the game is designed to be played with a controller or gamepad, although it can also be played with a keyboard. The operating environment for World Cricket Simulator is designed to provide a smooth and seamless gaming experience, allowing players to fully enjoy the immersive and realistic simulation of the sport of cricket.

2.6   Design and implementation constraints:

The design and implementation constraints for World Cricket Simulator include the following:
> **Realism:** The game must simulate the sport of cricket as realistically as possible, while still being fun and accessible to play. This requires a delicate balance between realism and playability.
> **Performance**: The game must run smoothly and provide a high-quality visual experience, even on lower-end hardware. This requires optimization of the graphics and performance of the game.

- **User Experience:** The game must be easy to learn and play, with intuitive controls and engaging gameplay. The user interface must also be designed to provide a seamless and enjoyable experience for players.

- **Compatibility:** The game must be compatible with a wide range of operating systems, devices, and hardware, to ensure that as many players as possible can enjoy the game.

- **Budget and Resources:** The development of the game must be completed within budget and with available resources, while still meeting the requirements of the project and providing an high quality experience for players.

2.7   User Documentation:

This documentation should provide an overview of the system's features and functionality, as well as step-by-step instructions for using the software.

The documentation should start with a brief introduction to the World Cricket Simulator, including its purpose and key features. This should be followed by a detailed description of the user interface, including screen shots and a description of the various menu options and buttons. The documentation should also provide instructions for setting up and configuring the software, as well as tips for troubleshooting any problems that may arise.

In addition to these general instructions, the user documentation should also include detailed information on how to use the software to play and manage cricket games. This should include instructions on how to select teams, set up the playing field, and control the flow of the game. The documentation should also provide tips and strategies for playing the game, as well as information on how to access and use various game statistics.

Finally, the user documentation should include a section on frequently asked questions (FAQs), which can help users quickly find answers to common questions and problems. This section should be regularly updated to reflect the latest information on the software.

Overall, the user documentation for the World Cricket Simulator should be well-organized, easy to understand, and comprehensive. It should provide users with all the information they need to use the software effectively and enjoy playing cricket games.

2.8   Assumptions and Dependencies:

The assumptions and dependencies for World Cricket Simulator are crucial factors that impact the success of the game. The following are some of the key assumptions and dependencies of the game:

- **Player Interest:** The game is built on the assumption that there is sufficient player interest in the sport of cricket and cricket simulation games. Without this interest, the game may not be successful in attracting and retaining players.
- **Hardware and Software:** The game requires a recent model computer or gaming console with a dedicated graphics card and sufficient memory and storage to run smoothly. Players must

also have access to the necessary operating systems, such as Windows, Mac, or Linux, and internet connectivity for Login and Sign-in and to download updates.

➢ **Internet Connectivity**: The game requires a reliable internet connection for Login and signup and to download updates. Without this connectivity, players may not be able to fully enjoy the features and capabilities of the game.

➢ **Controller Support**: The game is designed to be played with a keyboard and mouse or controller, which is the preferred method of playing. Players without access to a controller or keyboard may have a less enjoyable experience playing the game.

➢ **Game Design and Development:** The design and development of the game must take into account the needs and expectations of players, as well as the constraints of budget, resources, and time. The success of the game depends on the ability to create a high-quality, immersive, and enjoyable cricket simulation experience.

These assumptions and dependencies must be carefully managed and monitored throughout the development and deployment of World Cricket Simulator, in order to ensure a successful and enjoyable game experience for players.
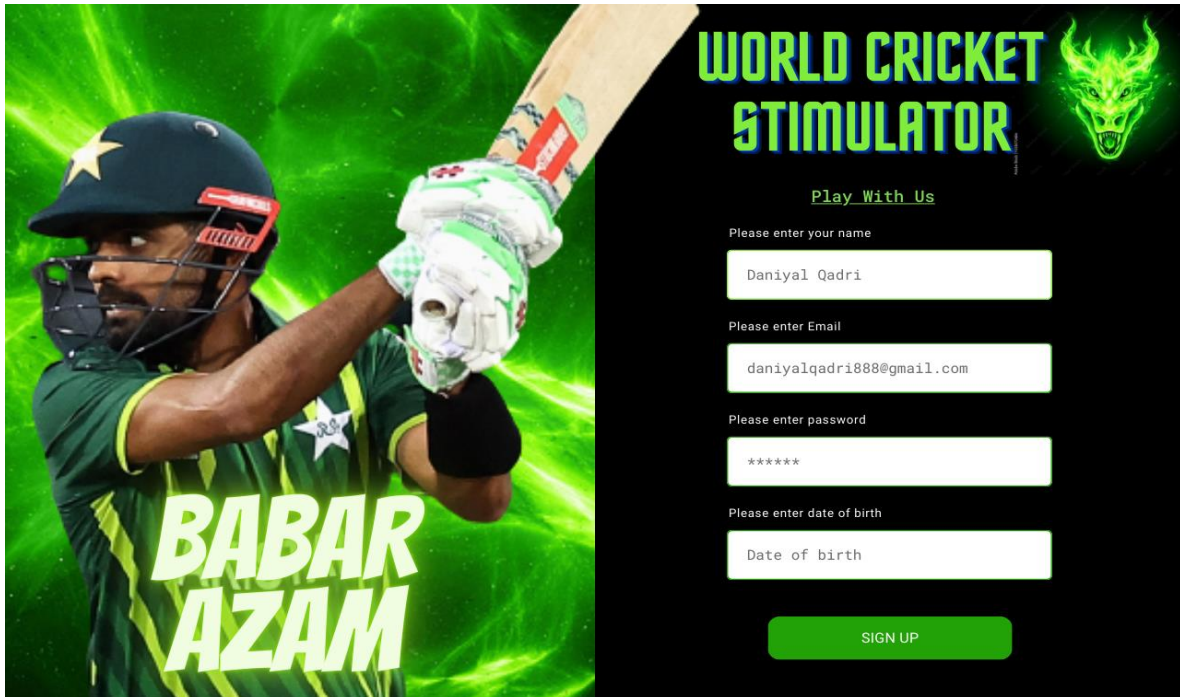
3   Prototyping:

3.1   User Interface:

The user interface requirements for the World Cricket Simulator SRS document should aim to provide a smooth and intuitive experience for the player. This includes requirements such as a user-friendly navigation system, clear and responsive game controls, relevant on-screen information, a menu system, customizable UI options, in-game help and tutorials, visually appealing loading screens, on-screen notifications, and clear error messages.

Figure 1 Represents the opening Interface with Logo

Figure 2 for User to Sign UP

Figure 3 for User to login if he have Existing Account

Figure 4 for Use to Select Team

Figure 5 for User to Select Players

Figure 6 The last Interface for the user.

Figure 7 Gameplay Interface for the user.
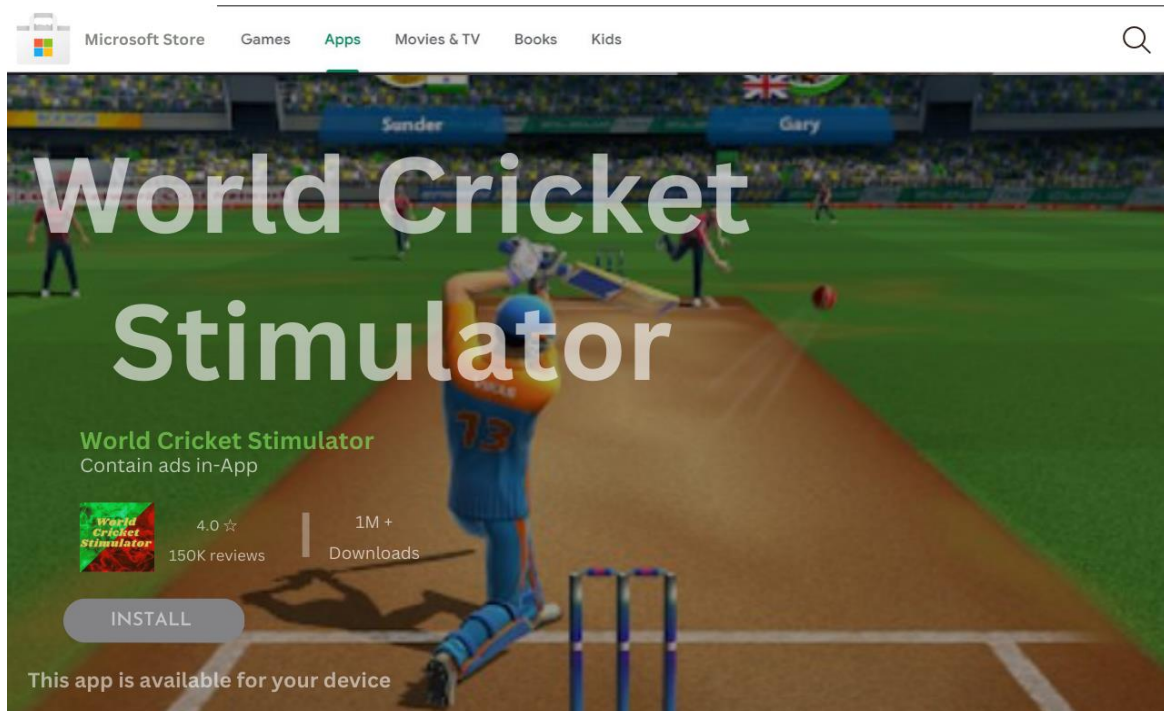
3.2 Software Interface:

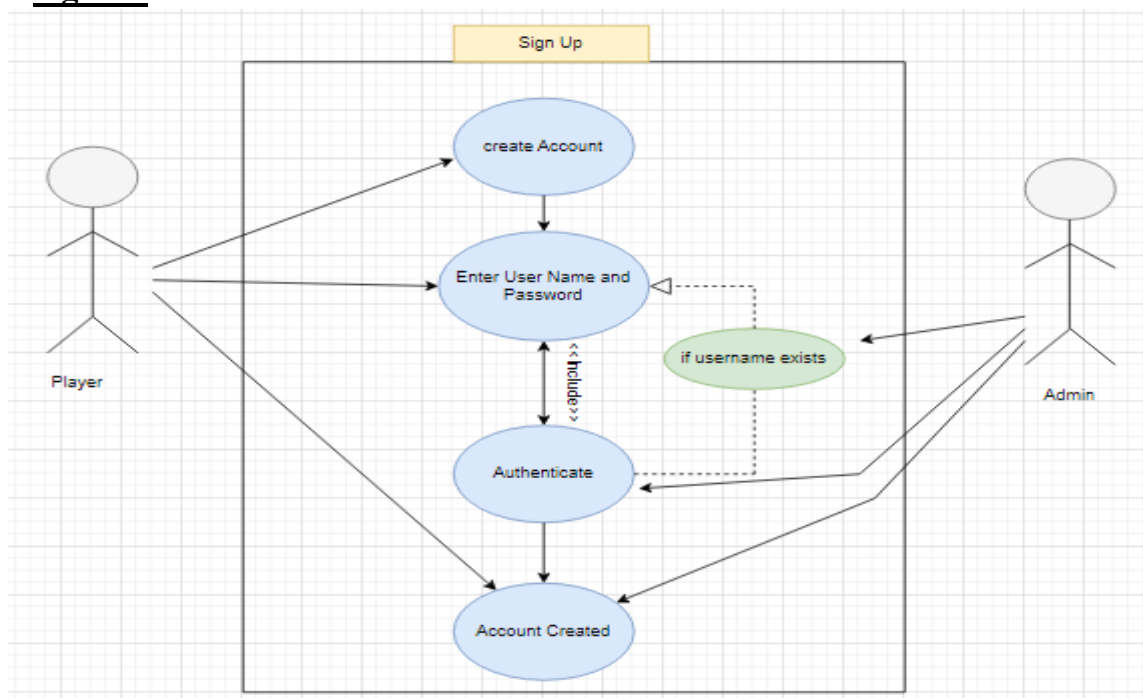*Figure 8 The Admin Panel would Have the following Interface.*

4 USE Cases:

4.1 Sign in:

Figure 9 User Case-1 for Sign In

4.1.1 Table:

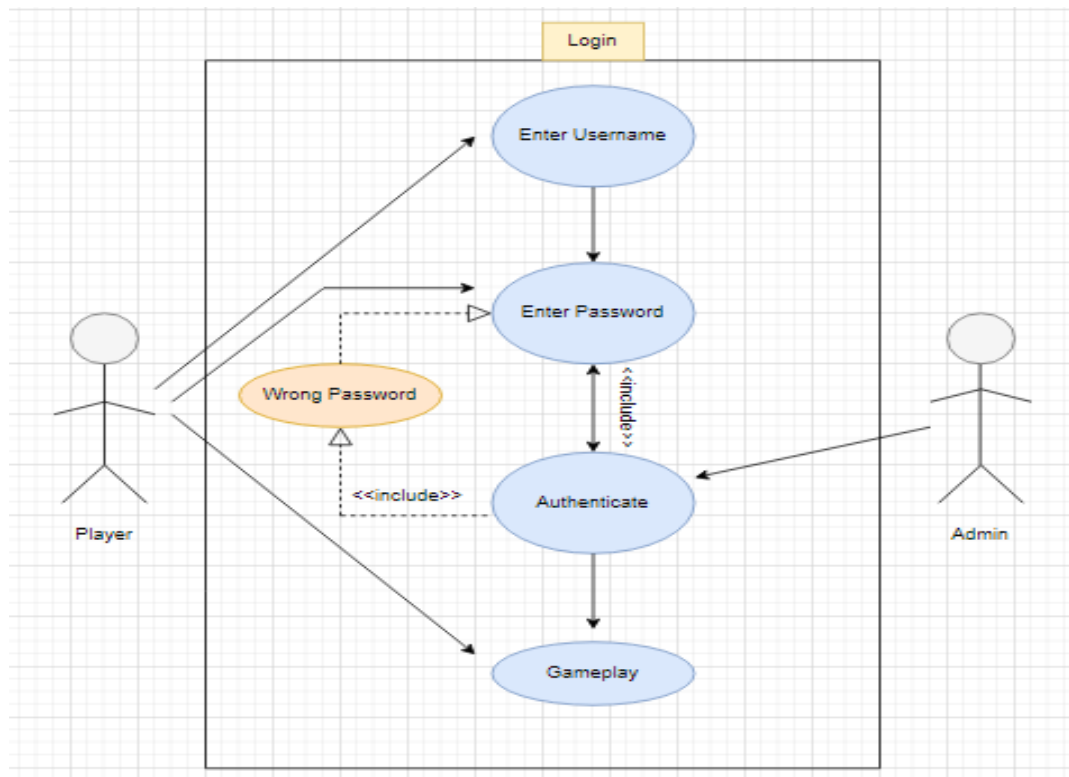| Use case name:	Signup
Description:	This use case allows the player to create personal account by entering your name, email address and password. Your provided data must be unique otherwise you can't create account on it.
Primary Actor:	Player
Secondary Actor:	Admin
Precondition:	• If you want to play a game or interact with interface of the game so should enter valid username and password. • You can't make multiple account by using same email address.
Post Condition;	• After the authentication game interface will display to the player. • Entering the wrong password cause to move back to the first step. • Your account is block if you enter fake password multiple times

4.2 Login:

Figure 10 Use Case-2 for Login

4.2.1   <u>Table:</u>

Use case name:	Login
Description:	If user have an existing account, then user can enter account by providing the correct username and password. After fully verification you can easily interact with game main home screen
Primary Actor:	user
Secondary Actor:	Admin
Precondition:	• Enter the correct information is very important to access your account • If u can't remember your username and password then firstly you should some steps of verification then you can change your username and password and then you login into your account
Post Condition;	• After login into the account, User can play tournaments, quick match, check player stats and send personal feedback

4.3   <u>Main Interface:</u>
4.3.1   <u>Table:</u>

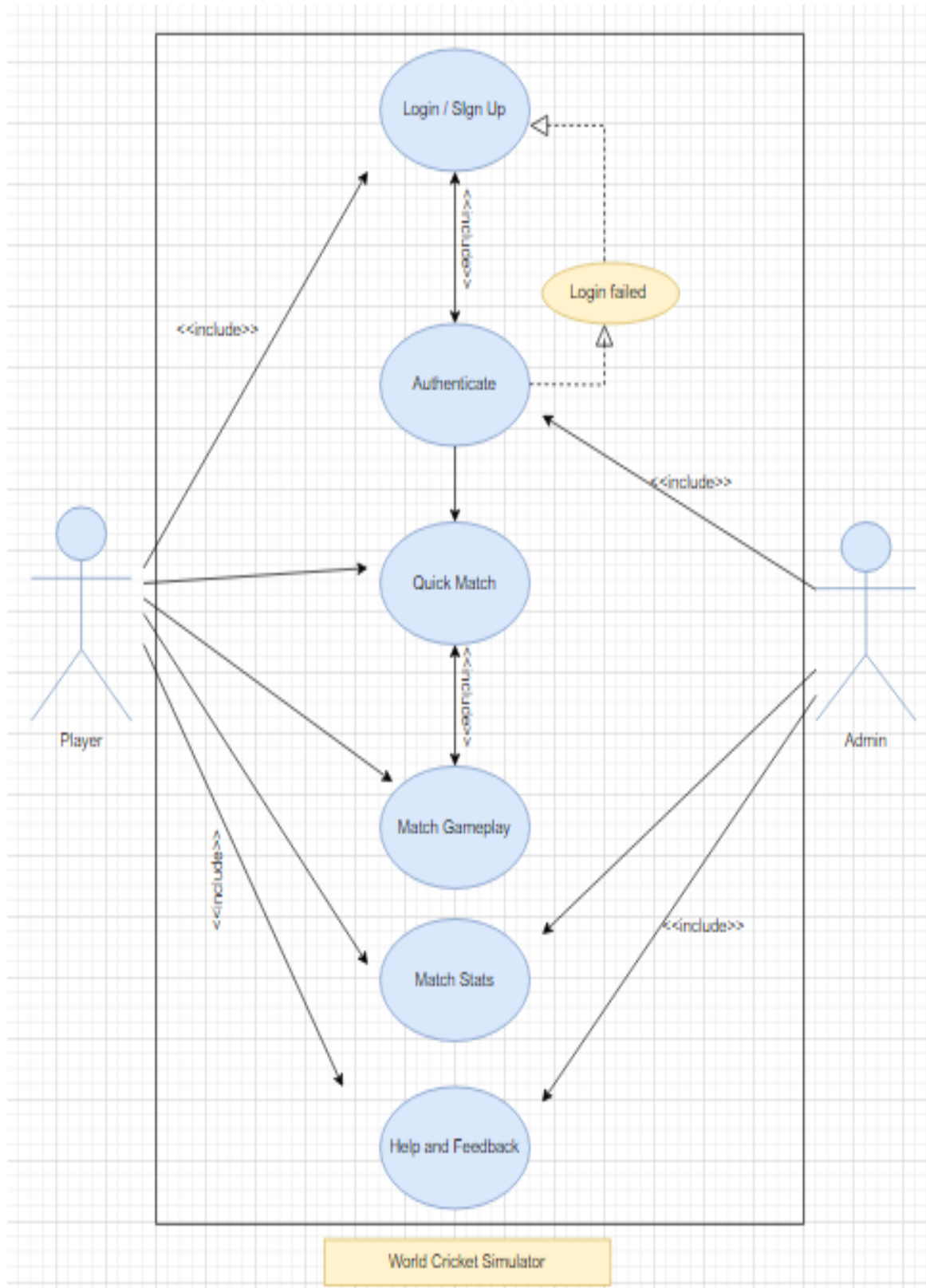| Use case name:	World cricket stimulator
Description:	This use case actually represents the whole system of the game. First of all the user will have to login and after the fully authentication, user will interact with the main interface. First option is quick match, after clicking on it user will play a game.
Primary Actor:	player
Secondary Actor:	Admin
Precondition:	• You will have to login or signup if u don't have an existing account then firstly you will create an account otherwise login your account. • After filling the correct authentication you will play a game.
Post Condition;	• User can play quick match, check player stats and send personal feedback

Figure 11 Final Use Case for WCS

5 Other Non-Functional Requirements:

5.1 Performance

The game should provide a smooth and responsive user experience, with fast load times and minimal lag.

5.2 Security:

The game should protect the player's data and information, with secure login and data storage.

5.3 GRL Diagram:

The GRL diagram of game is as follow:

Figure 12 The Pictures Gives the GRL Diagram of The World Cricket Simulator