Q1: Ambiguities and Omissions

- How will the system respond when the user inserts a Debit card instead of a Credit card.
- What if we want to pay through debit card or cash
- How will the system respond if the user makes an error and wishes to cancel their ticket.
- What if the invalid PIN is entered by the user.
- Can a user buy multiple tickets for a particular destination.
- Is it mandatory to select a destination that can be reached from the current station
- What if the money is debited but the ticket is stuck inside the machine.
- What if the user gets the ticket but no amount is debited from his/her account.
- How the system will respond if the tickets are sold for the same destinations.
- What will happen to the user's money which is deducted if the personal identifier is erroneous or wrong
- Would the user need to insert the card again and again if they wish to buy multiple tickets?
- Since a message to the user is being sent when they want to select a destination, how would this message be sent? Through their connected phone? Or through the machine?
- Would the card validity be checked when the card number is inserted or when the card is inserted?
- How can a user get a ticket for a preferred seat arrangement.

Q2.

Functional Requirements:-

- Registration of new users - New users have to register in the system (Here NEW means individuals who just joined the institute).
- Login of existing users - Users should be able to login through his/her email ID which is given by the institute itself.
- Book Search() - We should be able to search any book using the ISBN number. This feature does not require login credentials
- Filtered Book search : Any user should be able to filter out certain books based on their author's name or publications name or anything else.
- Book Issue: The user should be able to select a book and be able to issue it for themselves. As it's not mentioned how many books a user can issue at a time then we will assume not more than 5.
- Book Return: The user should be able to return the book to the collection when they want to. As it's not mentioned for how long a user can keep a book we will assume it to be not more than 25 days.
- Book Return Reminder: The system should send a notification to the user regarding their upcoming deadline of book submissions or if they have missed the deadline
- Book Request: Users should be able to request a particular book. If that book is available then the system should send a notification.
- Book Waiting List: If the book is unavailable after the book request then the user is put in a waiting list (where they can get removed from voluntarily), so that when that book is returned, that particular user can get the book on FCFS basis
- Book Reissue: If a request for a particular book is not made then the user can ressiue the book.

Non - Functional Requirements:-
- Availability :- System should be available 24x7.
- Any machine with a browser could access this app (with mobile compatibility as well).
- Database must store encrypted password(not in plaintext).
- The website should be written in HTML-5.
- The website should be run only within institute LAN.
- The app must scale to incorporate all users on the institutes LAN.
- The website must be accessible to 200-250 users at a time.
- System should be scalable.

Q3.

1. STAKEHOLDERS:
   - Game Corporations
   - Gamers/End Users
   - Software Developers
   - Database Providers
   - Game Developers
   - Hosting Service Provider

   USERS:
   - Gamers/End Users
   - Game Analysts
   - Data Miners
   - Other websites/softwares
   - ESports Organizations

2.

- **User Login:**

    Users will have to login into the website to view player-specific as well as match-specific data. The login credentials will include the email of the user and password.

- **User SignUp:**

    Users that are logging in for the first time will have to register themselves on the website. The registration credentials will require the Full name of the user, an email address as well as a password.

- **Password Change Functionality:**

    Users could change their passwords if they forget their old one by using an OTP send through an email or phone number as prompted by them.

- **General Statistics(No login required):**

    Users will be able to view some general stats of the game without logging in. General stats will include global leaderboards of the game, Agent Description, Maps, fun facts, etc.

- **Player Statistics(login required):**

    Users will be able to view their personal stats like how many matches they've played, which champion they've chosen, win to lose ratios, and many more player-specific stats. It will also contain a match statistics section in which they will be able to view and analyze each match they've played, with which other users they've played that match etc. An important thing to note is that the user will have to provide their '**riot game id'** to view these statistics.

- **Custom Lookup(login required):**

    Users should be able to set the different parameters to filter out the desired results, they could fine-tune some parameters like which type of champion they wish to play, what opponents they wish to play, at what levels, with what spells, so a user has flexibility to tune these details and get the desired output.
● Build compare: Compares your build with other expert players and
their games
● Real time analysis: Shows you the real time strength of your teams
and your builds by using the database in our software.

- **Team Lookup(login required):**

    This functionality is similar to the one mentioned above but instead of filtering out results for a single player, users should be able to get the analytics for a team which consists of a variable number of players.

Users will have to
Allow users to sign in through their game IDs and link
their game data to the software for better analytics

- **Playstyle based suggestions(login required):**

    Users should be able to get the analytics and suggestions on their playstyles, how they could improve their game, these suggestions should be based on the previous games a player has played, rather it be single or team mode.

- **Tire List(login required):**

     The interface will show the Tier list based on Win rate and no of matches played by users. And how many % of players are ahead of the user in the game.

- **Auto Update Statistical Data:**

     The website will automatically update all the statistical data at regular intervals of time so as to keep up with the latest trends in the game

3.
  - The system will have a multi browser compatibility.
  - The system will be responsive for mobile compatibility.
  - The system should include scalability optimizations, to support our application on a larger scale.
  - The system should be reliable.
  - The system should have good performance.
  - The system should be available everytime we access it.
  - The system will be user friendly.

4.

Home Page :-
Logged Off -
This home page will be the same for all users. This page will have basic information like basic stats of the game, leader boards, player cards. This page will also have following sections like,

a.Contact us
b.Basic Stats
c.Heroes abilities
d.About us
e.How to use
f.Search Bar
g.Login/Register

But in order to access sections a - f users need to login/register first, so that users can access more information on the website.

Login/Register Form -
Users will be provided a Login/Register form and they need to insert their email id, and need to set a password which must be 8 characters long.

Logged-in -
This page will have following sections,

a.Contact us
b.Basic Stats
c.Heroes abilities
d.About us
e.How to use
f.Search Bar
g.Log - off

Contact us :-

This page will contain contact information(email, phone-number), if there are any queries.

Basic Stats :-

This page shows some basic stats statical data like how many people play this game, no. of gaming tournaments etc.

Heroes abilities:-

This page will have all details about the heroes like, it's playing style, win-rate, abilities and it's information.

About Us:-

This page will have details about the developers of this website.

How to Use:-

This page will have a short tutorial on how to use this website, so that new users will have little difficulties while using this website.

Search Bar :-

When the user clicks on this section, the user will be prompted to enter his/her Game ID. After entering the Game ID user will be given two options Stats and Suggestions.

- Stats -
  In this page users will be given two options: player stats and match stats.
- Suggestions -
  In this page users will be provided the suggestion about their optimized game strategy.In this page users will be given three options: App driven, Custom, Comparison.
    - ❏ App Driven - Here suggestions will be provided by the website based on the past performance of the user.
    - ❏ Custom - Here suggestions will be provided on the basis of the input given by users like playstyle, heroes etc.
   - ❏ Comparison - Here user will be able to compare his/her builds with the builds of the other gamers.

5.

Updates:The updates are not frequent. Though the complaints received from the customers and bugs reported are high, the updates are not released Immediately.

Community outreach : In order to make a project successful, it is necessary to have a vast community of users. To spread the network faster and increase the number of users is a challenge.

Optimizing database calls: In order to reduce the lag of the website and allow more users to access it at the same time with the latest data available a better algorithm needs to be implemented in order to make the database calls faster and more frequent

6.
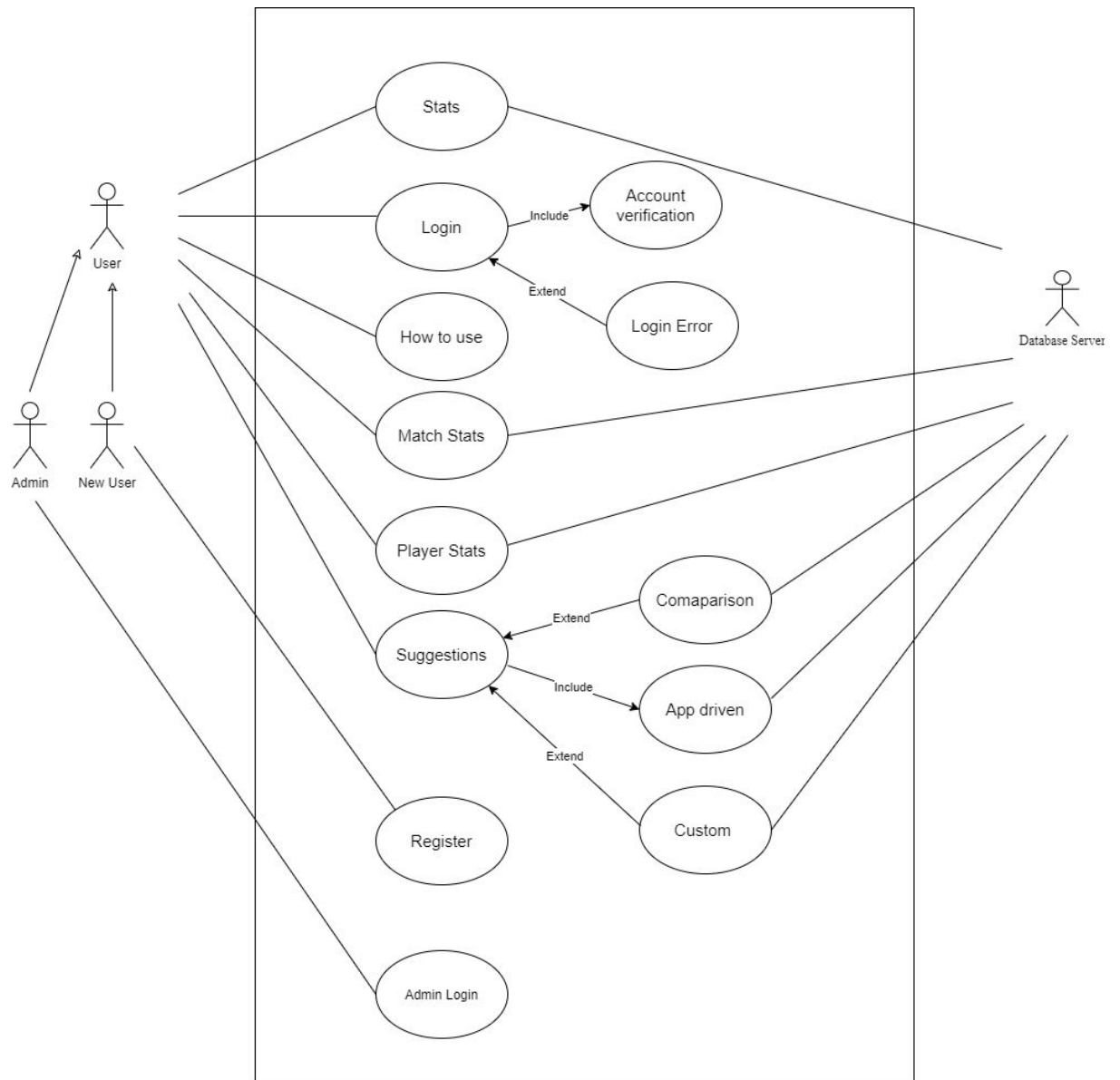
7.

We wish to build an application that could potentially help new and less experienced players who don't have much idea about the game, we could see that in today's world the competitive gaming is emerging as a real career option, plenty of competitive games are offering tournaments with unimaginable prize pools, and even if we don't play competitive there are a plethora of options on joining youtube and presenting game analytics, also streaming live games is a good choice too, if they are interested. Also many people in today's world don't consider gaming as a real career option so our app could change the mindset of those kinds of people too.

So our app could provide a new direction in the field of competitive gaming, and encourage more and more players to choose gaming as their career, and will provide a tool that could help them in their initial phases. Our app can be used as a quick guide to learn and understand the League of Legends game in a much simpler and easier way.