

Team 24 (Team Black and Yellow)

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Project Name:

1. Problem Statement

Low-level players struggle to climb ranked, yet they can't because they don't learn anything from their past games since they only play with low level players. Also, some skilled players have their own specific shortcomings which draw them back from climbing higher.

2. Background Information

Audience

The domain, and the targeted users of our application are the game *League of Legends*, and the players of this game.

Similar Applications

Currently, there are multiple web applications that serve similar functionalities with what we are planning such as : op.gg, lolking.com, which focus on providing the match history, and ranked stats of the players.

Limitations

Yet these apps are focused on mere match history and used for looking up other players' ranked stats. In other words, they don't provide any guidelines on how one should be playing the game to improve oneself. Our solution covers this area by giving out advice to users based on their game statistics.

3. Requirements

Functional

- As a user, I would like to load this web application on my web browser.
- As a user, I would like to be able to sign in to this web application.
- As a user, I would like to be able to view the recently looked up players on the app.
- As a user, I would like to be able to customize the data dashboard to my taste.
- As a user, I would like an interactive page where I can input the champions that I will play/ban, which will give us advice based upon the picks.
- As a user, I would like to see simple but helpful suggestions how I should play the current match, before the game actually starts.

- As a user, I would like to have simple and intuitive UI.
- As a user, I would like to track my tier improvements/drops with a visual graph.
- As a user, I would like to compare my performance on certain champions to those of others.
- As a user, I would like to track how many wards my opponents normally put down.
- As a user, I would like to track where my opponents usually put down their wards.
- As a user, I would like to get constructive feedbacks from other players post game.
- As a user, I would like to see if my opponent is good on a certain champion
- As a user, I would like to see if my teammates are good at certain champions
- As a user, I would like to be given a post game feedback on why I lost/win.
- As a user, I would like a duo player recommendation system.
- As a user, I would like to view how much I have improved after using the application with date timestamps.
- As a user, I would like to be able to see trending items and champions.
- As a user, I would like to be able to leave feedbacks on trending items and champions.
- As a user, I would like to have my rank specific suggested bans/picks.
- As a user, I would like to be able to see the replay of the previous games.
- As a user, I would like to see pie graphs of damage/gold distributions of the game.
- As a user, I would like to see a timeline of events that happened in the game(kills/deaths/objectives).
- As an administrator, I would like to see how many people are logged into my application at a time.

Non Functional

Architecture

This application will be a basic client-server based program with database for the users added on top of it. The server will be talking to the Riot Games' API server based on the clients' requests, and applying functions and algorithms of ours on the data to provide guidelines to the clients. The current technology stack that we are considering right now is: Python for backend, and HTML/CSS/Javascript for frontend.

Performance

The program should be fast enough so that the users can skim through the current match information during the loading screen. This will be a challenge since our program has to be fast enough to fetch the data within the very short time(while the game loads) and display it to the client so they can benefit from it during the actual game.

Security

Security would not be a very important factor, since all the match statistics and miscellaneous data are already provided by Riot Games, and they are not meant to be hidden from anybody. One part that we will have to consider is our database containing the logs of our applications, and user info for signed in users, which should be encrypted to avoid any type of attacks.

UI/UX

UI and UX of our application should be intuitive enough so that people who are using the application can simply search their account and get the match info within the loading time of the game. Also, the guidelines that we provide should be short enough so the users can remember easily, and specific enough to actually help them improve, which will come in a big challenge for us.