

Era Sports

A web-based e-sports platform

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ERA SPORTS

A web-based e-sports platform

A report on

Practice School-2

Submitted in partial fulfilment of the
requirements for the degree of

Bachelor of Technology in Computer Science Engineering

By:

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(2018BTechCSE107)

Faculty Guide:

Mr. Alok Kumar



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CERTIFICATE

This is to certify that the practice School-2 project work entitled “Era-Sports: A web-based e-sports platform” submitted by **Harshit Singhal (2018BtechCSE107)** towards the partial fulfilment of the requirements for the **Bachelor of Technology in Computer Science Engineering** of JK Lakshmipat University Jaipur is the record of work carried out by him under my supervision and guidance. In my opinion, the submitted work has reached a level required for being accepted for Practice School-II examination.



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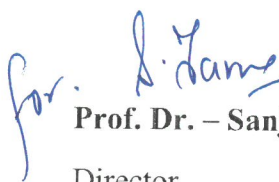
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My heartfelt thanks to Mr. Rajesh Mehla, Mr. Vinay Bhardwaj and Mr. Yash Pal for their support during the project. I would also like to thank my team for their valuable input to the project work. Thanking all my friends and all those who have helped me carrying out this work directly or indirectly without whom working on this project work was not possible.

I would also like to thank sincerely to Dr. Sanjay Goel, Director, Institute of Engineering and Technology, JK Lakshmipat University for giving us a platform to carry out the project.

Sincerely yours,

Harshit Singhal
(2018BtechCSE107)

ABSTRACT

Industrial training is a part of your academic session which is designed to give you an analysis of the industrial environment in your profession. Industrial training refers to work proficiency that is applicable to professional advancement prior to graduation. In industrial training students join the company which is related to their profession and subject and they complete their industrial training in a particular time e.g 2 months, 3 months 6 months of industrial training etc. Industrial training is a program that offers good practical training for a certain time period. It is offered by private companies as well as by government organizations. Industrial training provides students skills and practical knowledge significantly that helps the students to become successful and professionals.

As the last years have shown a massive growth within the field of electronic sports (eSports), several questions emerge, such as how much is it growing, and will it continue to grow? This research thesis sees this as its statement of problem, and further aims to define and measure the main factors that caused the growth of eSports. To further enhance the growth, the benefits and disbenefits of implementing Information Technology Management tools is appraised, which additionally gives an understanding of the future of eSports. Through observation of the data collection, the themes games played, games genre, and single-player or team-player was deemed most important. A statistical analysis was additionally done on the numerical data, which showed significant correlation between the themes prize pool, participants and participating countries towards live audience. This indicates that the mentioned themes affect how many people attends live eSport event. The analysis also consists of a trend analysis, which presents that nearly every theme analyzed will continue to grow in a five-year period. The trend analysis further expects a 305.51% growth in the live audience from 2014-2019, while the virtual streaming audience is expected to experience a growth of 140.61%. To enhance this growth, the research thesis recommends using the presented trends and patterns found in the short-term, to conduct successful eSport events. However, in the long-term an implementation of a Data-driven Decision Support System can be done, which will periodically gather data to know the best possible way to deliver eSport events to the eSport community.

The Era Sports is a web app. The purpose of developing this web app is that to put all the E-sports PC games like Valorant, LOL, HOLA, CS:GO, Rocket League game together in a single web app so that any organization or individual can conduct their tournament or league , any organizations or individual can take participate in any tournament or league . We have also added a Sponsor Hub and Stats feature in which you can find out the most MVP(Most Valuable Player) of different tournaments. It is a web app developed using python-based framework Django for handling APIs at backend and Postgres SQL as database whereas the frontend is develop using Svelte, Tailwind.

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CHAPTER 1: INTRODUCTION

1.1 ABOUT SAM ANALYTIC SOLUTION

SAM Analytic Solutions was founded in 2009 in Morrisville, NC, and is currently headquartered in Durham, NC, USA, providing products and services to its customers all across the US and beyond. The company was born with the mission of providing the very best in Operational Technology and Industrial Automation software as well as hardware to manufacturers, industrial organizations, governmental entities to help them achieve maximum efficiency and organizational success.

We are the one-stop-shop for OT/IA products and services and are particularly adept at helping our customers navigate the OT/IT interface. Our passion is what fuels our team to provide exceptional solutions and drives both ours and your success. Integrity, transparency, commitment and efficiency are at the core of our business practices. We strive to ensure our promise of high-quality products, services, and that customer satisfaction is met at all levels; your success is our singular focus!



Figure 1.1 Sam Analytic Solutions

1.2 General Figure of Era Sports

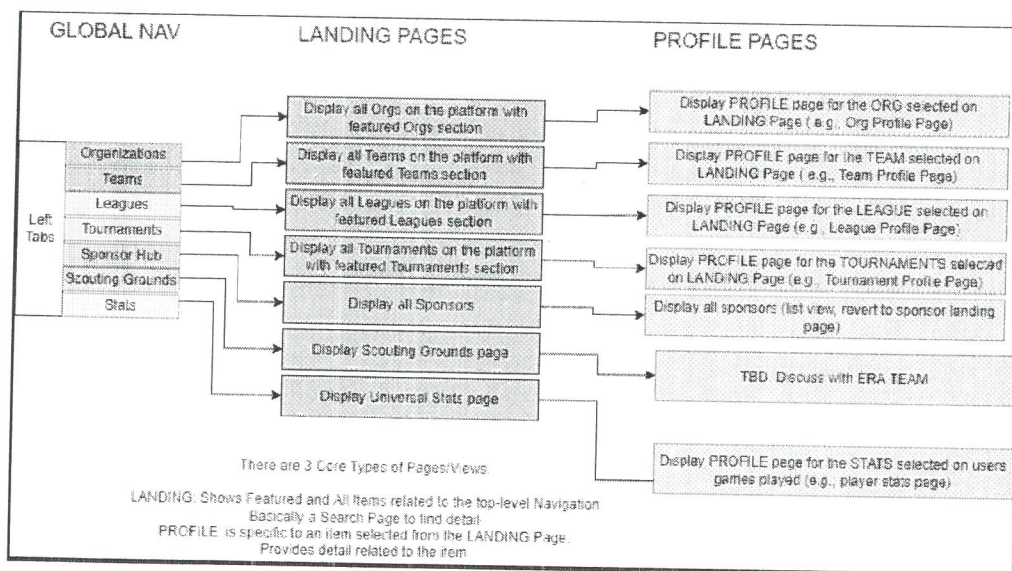


Figure 1.2 General Figure of Era Sports

1.3 Era Sports

The Era Sports is a web app. The purpose of developing this web app is to provide a platform for various E-sports PC games like Valorant, LOL, Holo, CS:GO, Rocket League and many other games together in a single web app.

The purpose of this web app is to provide a platform to the gamers or organization who are willing to take part in leagues or tournaments. It is also a place where one can conduct their own tournaments or league. This app consists of different types of features which can be easily modified according to the needs of users. . We have also added a Sponsor Hub and Stats feature in which you can find out the most MVP(Most Valuable Player) of different tournaments.

Era sports conduct competition leagues and tournaments among various teams from the top tier team to 2-Tier or 3-Tier teams. To conduct such events smoothly, the top Tier teams receive an invitation from web app, also, the 2-Tier, 3-Tier are encouraged to register themselves by notifying about upcoming events.

This web app consists of various sections, such as :-

- 1) Home page
- 2) Organization's
- 3) Teams
- 4) Leagues
- 5) Tournaments
- 6) Sponsor Hub
- 7) Stats

1.4 OBJECTIVE

The objective of this system is to provide a platform where different kinds of leagues and tournaments can take place in a single web app with a number of teams competing with each other and provide all the information's of ongoing tournament.

CHAPTER 2: PROPOSED SYSTEM

2.1 PROBLEM STATEMENT

In today's generation sports are becoming an integral part of the lives of a major population of youth around the world and in addition to this the increase in technology advancement is becoming a major reason for the youth to be attracted to a different version of field sports i.e., E-sports.

In the past several years, a lot of population are continuously getting more and more familiarized with E-sports. Thus, there is a need to focus on providing E-sports facilities to more population.

To achieve such facilities, a new web app can be made to provide a platform for various activities and other stuff related to E-sports. This web app can be used for various purposes such as relaxation and earning money.

2.2 DIFFERENT SCREENS IN ERA SPORTS

2.2.1 Sign Up Page

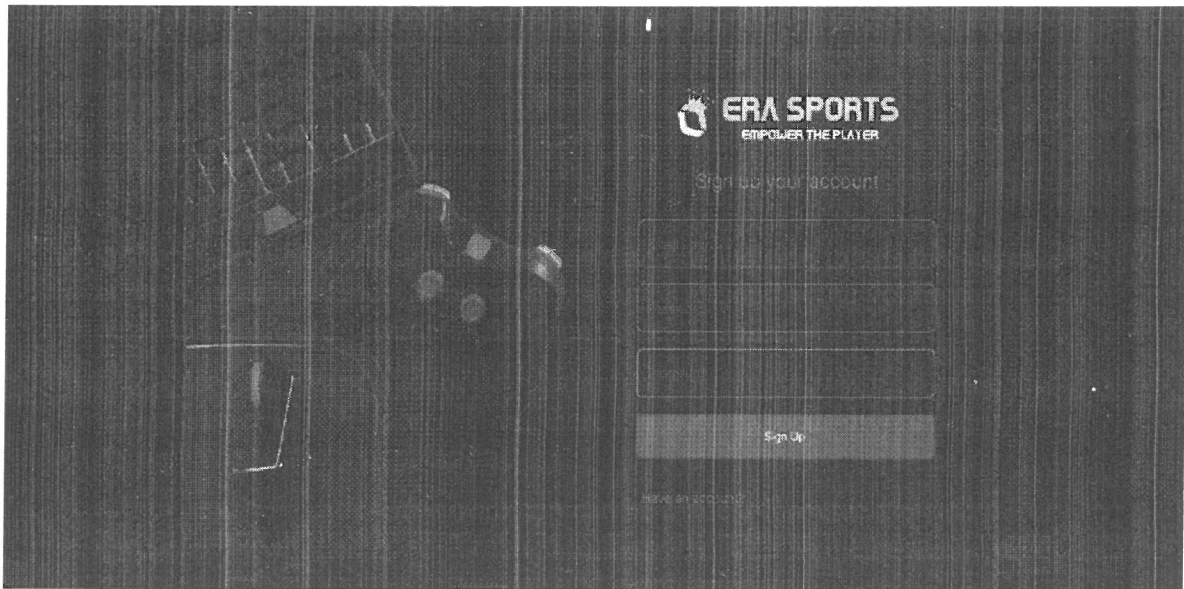


Figure 2.2.1

1. Firstly, you need to register yourself with Email and Password.

2.2.2 Sign In Page

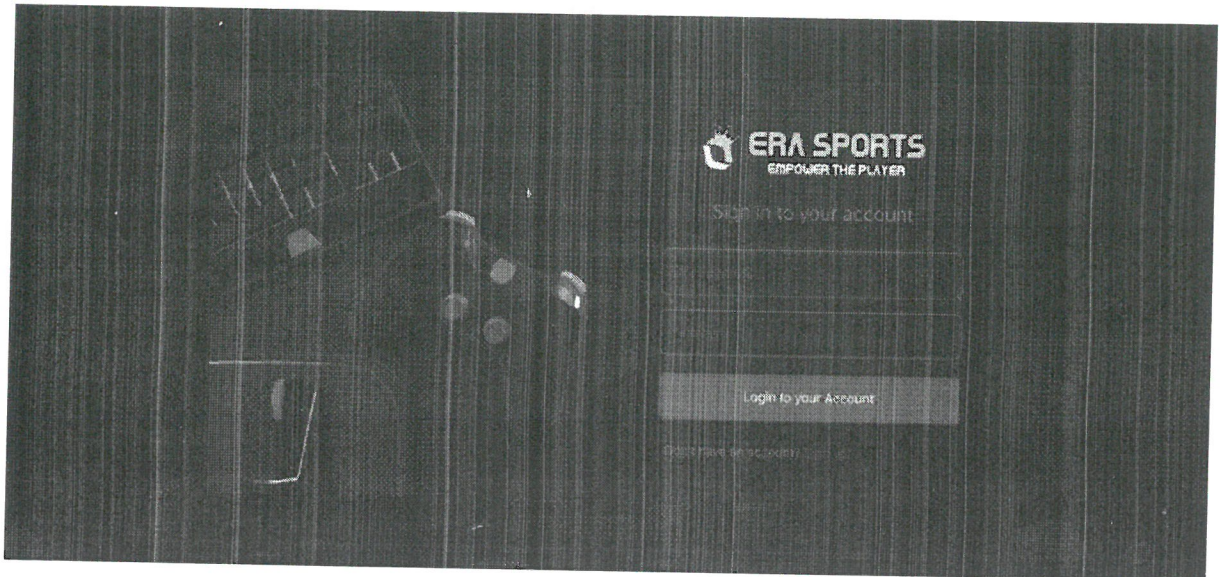
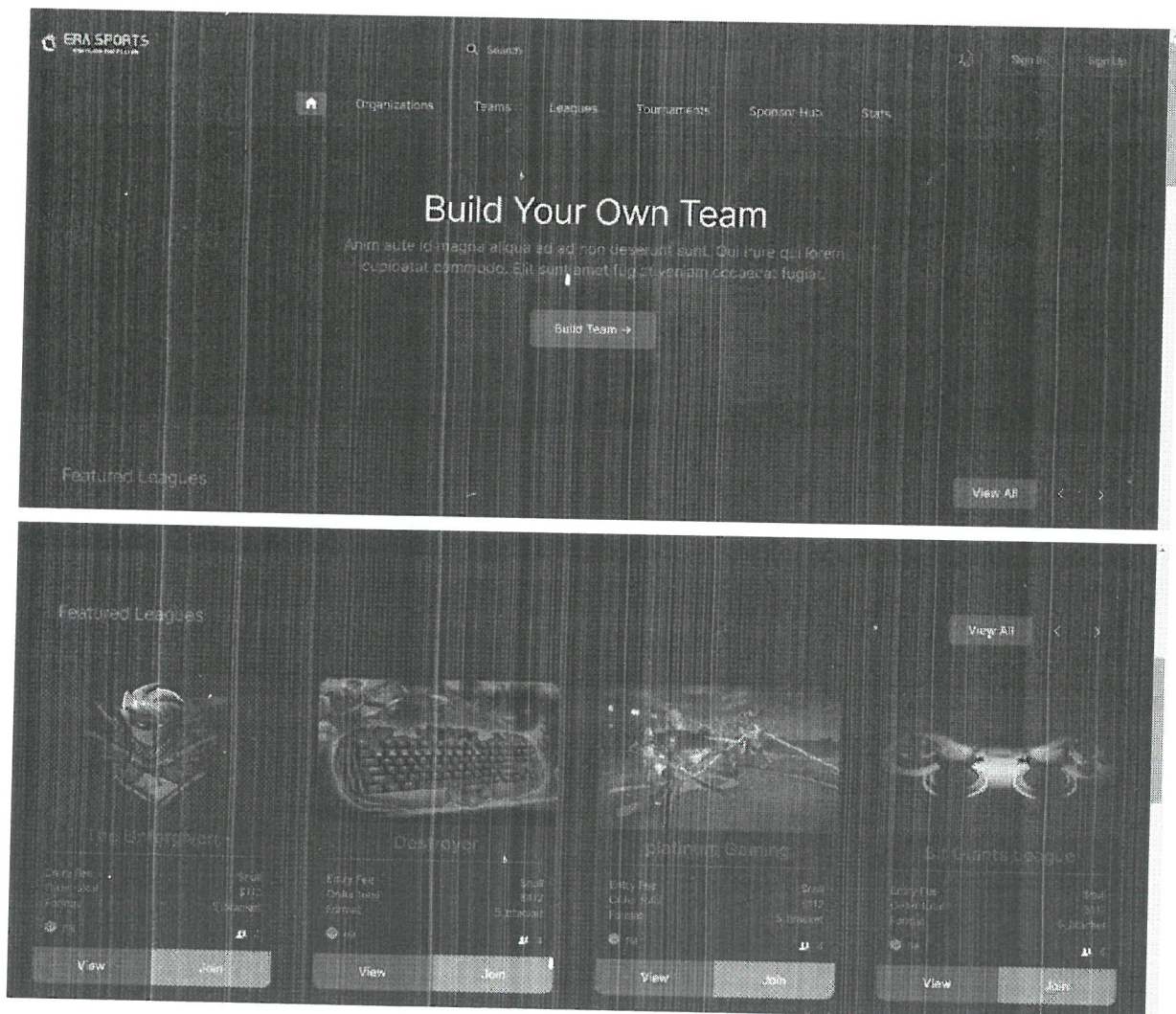


Figure 2.2.2

2. After Sign Up you need to Sign In with the provided credentials.

2.2.3 Home Page



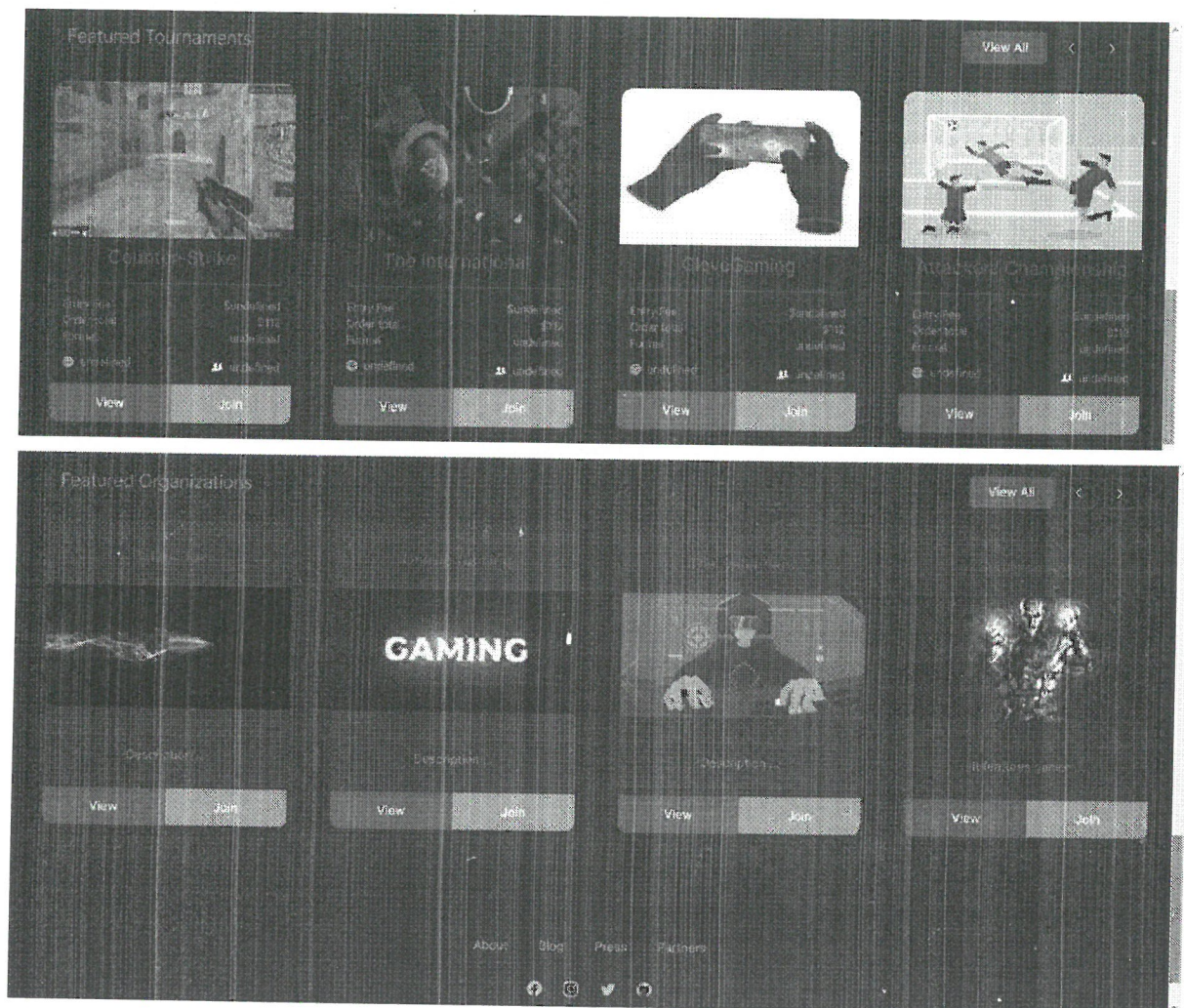
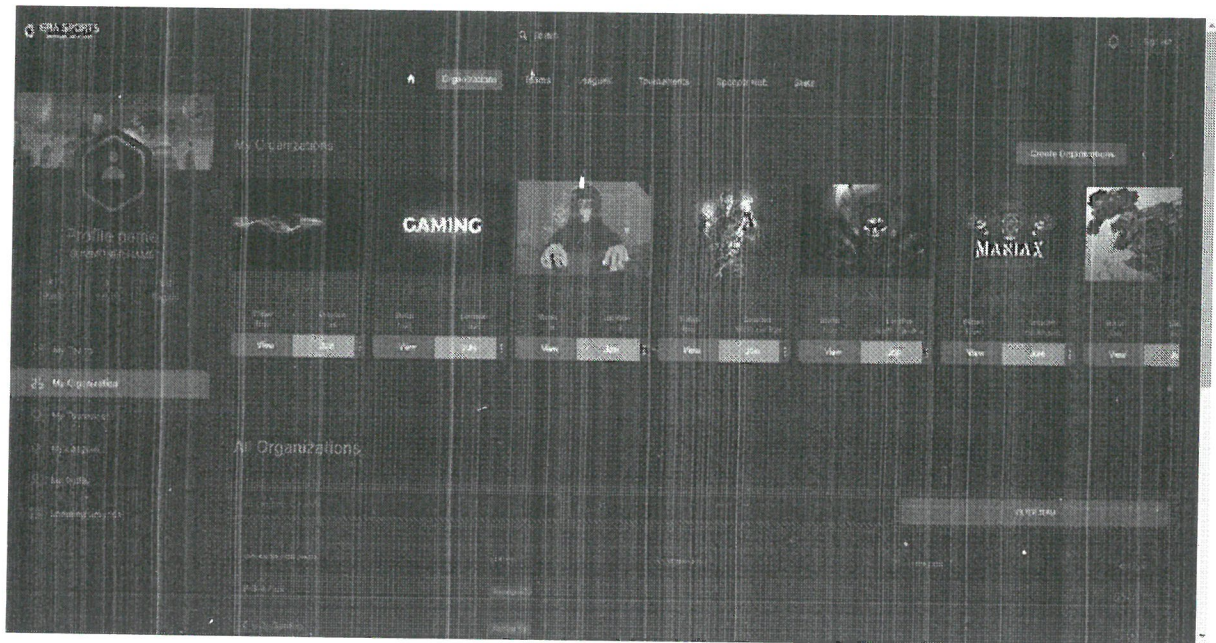


Figure 2.2.3

3. After Sign In , you redirected to home page where you find the Featured Tournaments, Featured Organization, Featured Leagues

2.2.4 Organization Page



4. After redirecting to the organization page, you find the different options like organization name, status of organization, description, locations, actions of organizations.

Figure 2.2.4

2.2.5 Team Page



Figure 2.2.5

5. After redirecting to the team page, you find the different options like team name, status of Team, Team type(High Schools, Professionals and many more), locations.

2.2.6 Tournament Page

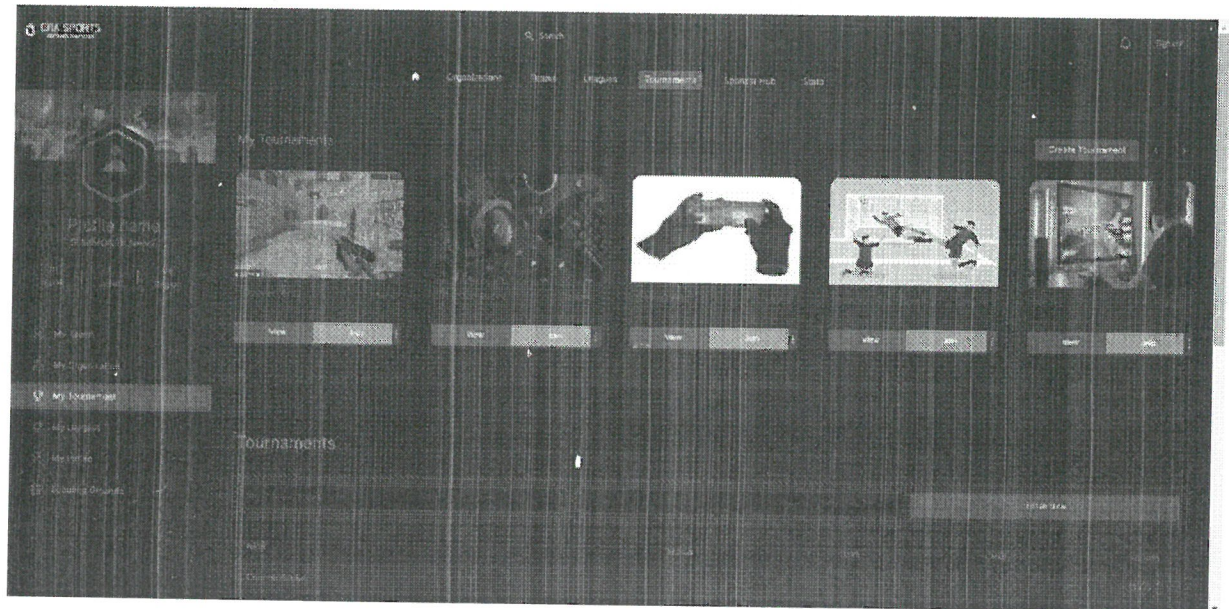


Figure 2.2.6

6. In Tournament Page you find out the Up Coming Tournaments, Ongoing Tournaments and register yourself in Upcoming Tournaments.

2.2.7 Leagues Page

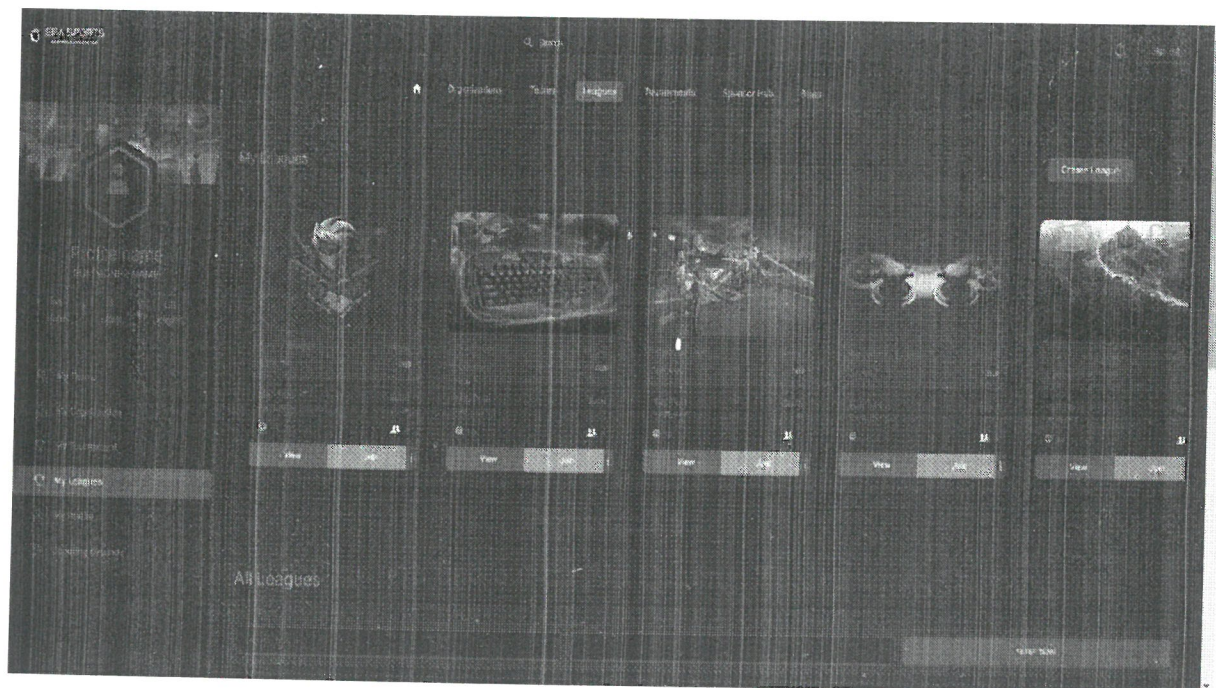


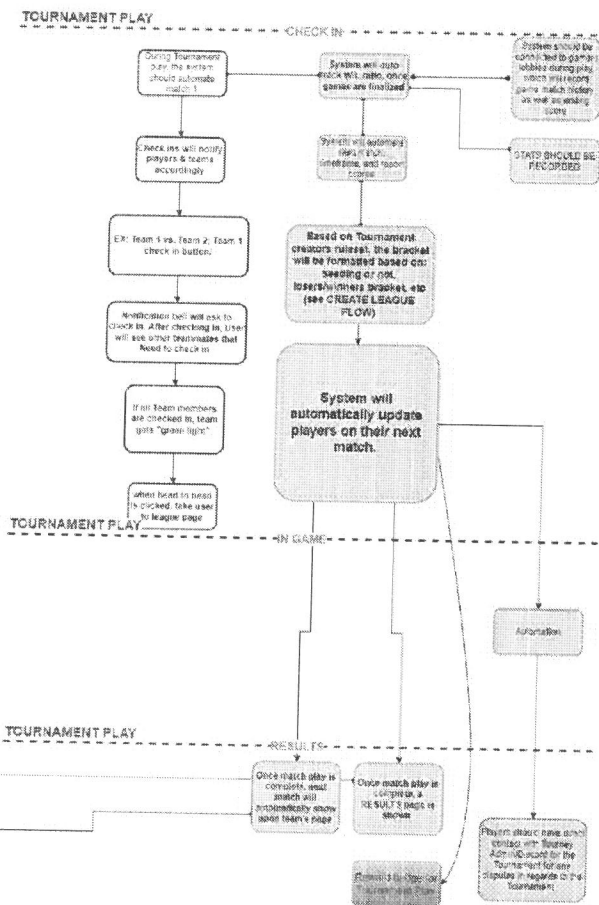
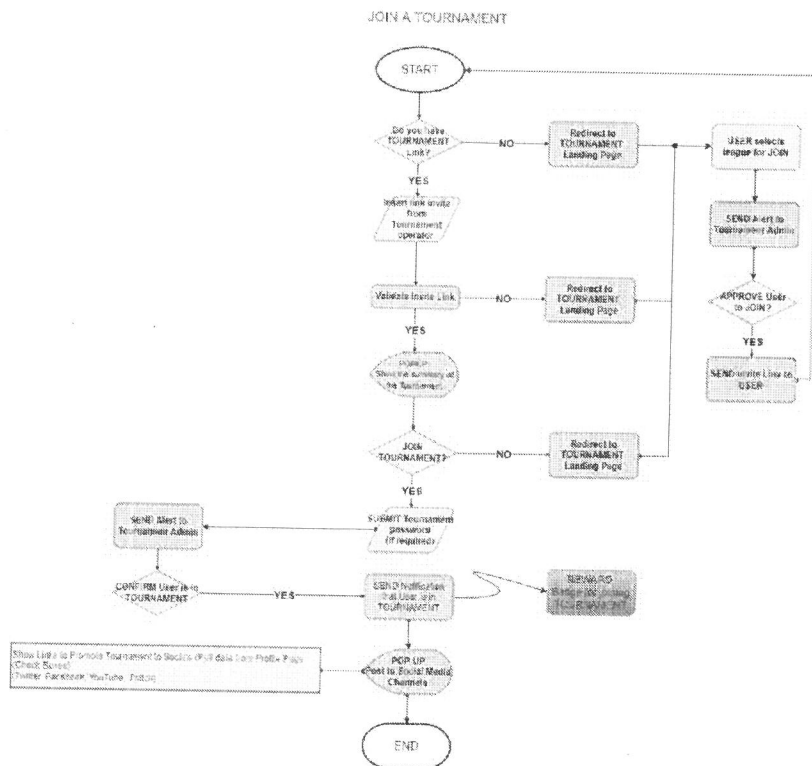
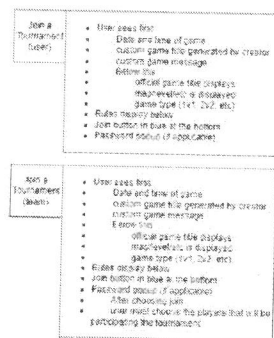
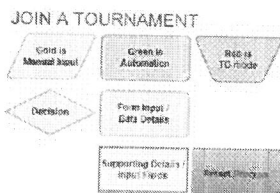
Figure 2.2.7

7. In League Page you find out the Up Coming Leagues, Different kinds of Ongoing Leagues and Entry Fee , Locations, Map Pick Type and Actions.

3.1 Workflow to Create a Tournament

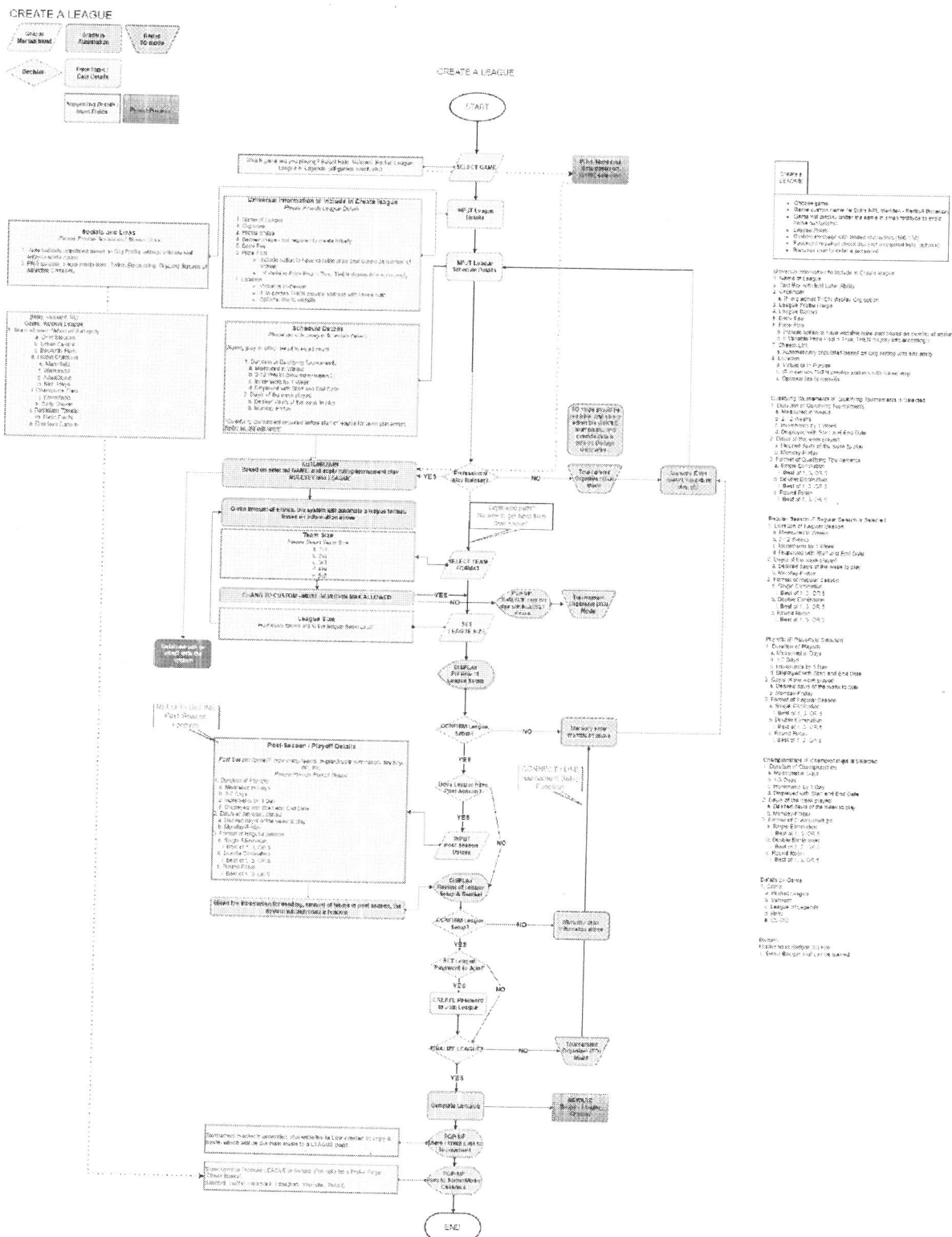


3.2 Workflow to Join a Tournament



Workflow 3.2

3.2 Workflow to Create a League



Workflow 3.3

JOIN A LEAGUE

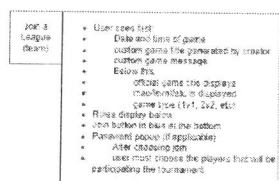
- Gold is Manual Input
- Green is Automation
- Red is TO enable

Decision

Forms Input : Data Enable

Supporting Details Input Facility

Output Facilities



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CHAPTER 4: TECHNOLOGY STACK

4.1 Django

Django follows the MVT (Model View Template) pattern which is based on the Model View Controller architecture. It's slightly different from the MVC pattern as it maintains its own conventions, so, the controller is handled by the framework itself. The template is a presentation layer. It is an HTML file mixed with Django Template Language (DTL). The developer provides the model, the view, and the template then maps it to a URL, and finally, Django serves it to the user.

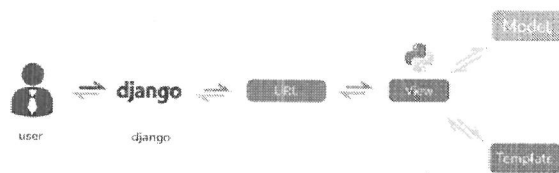


Figure 4.1

Features of Django Framework

1. Excellent Documentation.
2. Python Web-framework.
3. SEO Optimised.
4. High Scalability.
5. Versatile in Nature.
6. Offers High Security.
7. Thoroughly Tested.
8. Provides Rapid Development.

4.2 Svelte

Svelte provides a different approach to building web apps than some of the other frameworks covered in this module. While frameworks like React and Vue do the bulk of their work in the user's browser while the app is running, Svelte shifts that work into a compile step that happens only when you build your app, producing highly optimized vanilla JavaScript.

The outcome of this approach is not only smaller application bundles and better performance, but also a developer experience that is more approachable for people that have limited experience of the modern tooling ecosystem.

Svelte sticks closely to the classic web development model of HTML, CSS, and JS, just adding a few extensions to HTML and JavaScript. It arguably has fewer concepts and tools to learn than some of the other framework options.

4.3 Tailwind CSS

Tailwind CSS is basically a utility-first CSS framework for rapidly building custom user interfaces. It is a highly customizable, low-level CSS framework that gives you all of the building blocks you need to build bespoke designs without any annoying opinionated styles you have to fight to override.

The beauty of this thing called tailwind is it doesn't impose design specification or how your site should look like, you simply bring tiny components together to construct a user interface that is unique. What Tailwind simply does is take a 'raw' CSS file, processes this CSS file over a configuration file, and produces an output.

Why Tailwind CSS?

- Faster UI building process
- It is a utility-first CSS framework which means we can use utility classes to build custom designs without writing CSS as in traditional approach.

Advantages of Tailwind CSS:

- No more silly names for CSS classes and Id's.
- Minimum lines of Code in CSS file.
- We can customize the designs to make the components.
- Makes the website responsive.
- Makes the changes in the desired manner.

CSS is global in nature and if make changes in the file the property is changed in all the HTML files linked to it. But with the help of Tailwind CSS we can use utility classes and make local changes.

4.4 PostgreSQL

PostgreSQL is an advanced, enterprise-class, and open-source relational database system. PostgreSQL supports both SQL (relational) and JSON (non-relational) querying.

PostgreSQL is a highly stable database backed by more than 20 years of development by the open-source community.

PostgreSQL is used as a primary database for many web applications as well as mobile and analytics applications.

CONCLUSION

This project aims at providing all the Electronic Games under one web app. Where you can register yourself as a team or solo and play different tournaments and leagues. You also get the information of the upcoming tournaments and leagues.

During this project I have accomplished all the objectives and this project meets the needs of the lending organization. Sam Analytic Solutions, as an intern, it was a great learning experience, full of knowledge and excitements. I am truly grateful for the wonderful opportunity.

REFERENCE

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- <https://www.djangoproject.com/>
- <https://svelte.dev/>
- <https://tailwindcss.com/>
- From Company Documentations
- <https://samanalyticsolutions.com/>
- <https://www.postgresql.org/>



INTERNSHIP CERTIFICATE

Date: [15/05/2022]

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Harshit Singhal has done his internship in Software Developer at VARID COMPUTING SERVICES (INDIA) PRIVATE LIMITED, JAIPUR, from 04/01/2022 to 15/05/2022 for the duration of 4 months.

He has worked on a project titled Era Sports. This project was aimed at to create an online platform where organization, franchise can create the league or tournament and we can automatically send the email to particular invited teams. As part of the project, he has creating APIs of different models, mail invitation, Riot's APIs.

He also worked on in a company project named Eat stax, in this project he worked on Settings APIs and Sale Item APIs.

During his internship he has demonstrated his skills with self-motivation to learn new skills. His performance exceeded our expectations and he was able to complete the project on time.

We wish him all the best for his upcoming career.

VARID COMPUTING SERVICES (INDIA) PRIVATE LIMITED, JAIPUR,

VARID COMPUTING SERVICES (INDIA) PRIVATE LIMITED

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