The Project Hub

Introduction

"The Project Hub Apps", a groundbreaking initiative designed to revolutionize the way we access, explore, and engage with the knowledge and innovation of our university students. Project Hub Apps emerges as a transformative platform that empowers individuals to effortlessly discover, contribute, and get knowledge on projects that shape our capability.

At its core, the Project Hub Apps embody the belief that technology can enhance our ability to share, learn, and create together. By harnessing the power of mobile applications, Project Hub provides an immersive experience that seamlessly integrates project archives, project ideas generator tools, and a rich repository of resources, allowing students to maximize their productivity and creativity.

The primary objective of Project Hub Apps is to empower individuals or teams with the tools they need to turn their ideas into reality. Whether you're a student working on a study project, an entrepreneur building a startup, or a professional embarking on a new venture, PH offers a dynamic and user-friendly ecosystem where the user gets maximum knowledge.
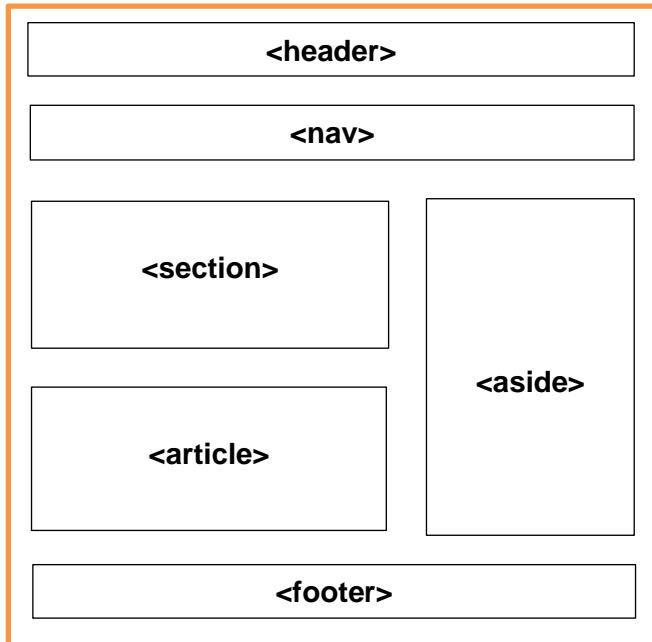
Objectives

- To get knowledge and ideas about all previous final projects.

- To facilitate project team members through collaboration and knowledge sharing.

- Project library can also encourage students for research by providing access to primary sources related to a project. This information can be used by researchers to study the project's history, development, and impact.

- Long-term preservation and sustainability: Project libraries can be designed to ensure the long-term conservation and sustainability of project information. This includes considerations such as appropriate storage formats, data backup, migration strategies, and recovery plans.

- Creating easy access to previous projects for faculty and students

- To filter if the project has been done by a previous batch.

- To generate new project ideas.

- To make a portfolio of university projects.

List of outputs

1. Main Interface.
2. List of Batch.
3. Batch's project list.
4. Find specific project and suggest search related project.
5. Most popular project list.
6. Project Proposal format as suggested by teacher.
7. Project Book format as suggested by teacher.

Output Discussion

1. **Main Interface:** This is the structure of the first page of our apps.

```
┌──────────────────────────────────────────┐
│  ┌────────────────────────────────────┐  │
│  │            <header>                 │  │
│  └────────────────────────────────────┘  │
│  ┌────────────────────────────────────┐  │
│  │             <nav>                   │  │
│  └────────────────────────────────────┘  │
│  ┌──────────────────┐  ┌─────────────┐   │
│  │                  │  │             │   │
│  │    <section>     │  │             │   │
│  │                  │  │             │   │
│  └──────────────────┘  │   <aside>   │   │
│  ┌──────────────────┐  │             │   │
│  │                  │  │             │   │
│  │    <article>     │  │             │   │
│  │                  │  │             │   │
│  └──────────────────┘  └─────────────┘   │
│  ┌────────────────────────────────────┐  │
│  │            <footer>                 │  │
│  └────────────────────────────────────┘  │
└──────────────────────────────────────────┘
```

2. **List of Batch:** Each semester at our University, Some teams are formed and submit different projects. If we add those project in the available next time. Fore Example: Two teams are formed within our batch, If the projects of these two teams are added to the apps, We can see those project at any time according to the name of the batch.

Batch's List
Batch #52
Batch #51
Batch #50
Batch #49
See More…

3. **Batch's project list:** Here display all batch related projects, that will be added to the app with the batch.

Batch's Project List
Batch #52:
1. **Project team number1**
2. **Project team number2**
Batch #51:
1. **Project team number1**
2. **Project team number2**
3. **Project team number3**
See More…

4. **Find specific project and suggest search related project:** We can search for specific projects here. Then we will get the GitHub link of all the projects. And with some project related to search will be suggested.

Available Project
1. **Project1.**
2. **Project2.**
3. **Project3.** **See more…**
Suggest:
1. **Project1**
2. **Project2**
3. **Project3**
4. **Project4.** **See more…**

5. **Most popular project list:** There will be many projects in these apps. But day by day some projects will become popular. Those projects will be displayed in list form here.

Popular Project
1. **Project.**
2. **Project2.**
3. **Project3.**
4. **Project4.**
5. **Project5.**
6. **Project6.**
7. **Project7.** See more…

6. **Project Proposal format as suggested by teacher:**

    Format Link: http://proposalformat.com

7. **Project Book format as suggested by teacher:**

    Format Link: http://bookformat.com

List of inputs

1. Create New Account.
2. Login.
3. Add project.
4. Search and Filters.
5. Rating and Reviews.
6. Discussion Option.

Input Discussion

1. **<u>Create New Account:</u>** To use these apps the user must create an account.

Table Name: User Table

Id	Username	E-mail	Password	Batch_ Number	Role	Created_date
01	Md Mehedi Hasan	mehedi35@gmail.com	******	52	0	02-06-2023
02	Md. Zahidul Islam	zahid30@gmail.com	******	52	1	04-05-2023
03	Bijoy Karmokar	bijoy25@gmail.com	******	52	2	03-05-2023
						SIGN UP

2. **<u>Login:</u>** If the user has already created the account. Then next he just has to login with his e-mail and password.

E-MAIL	PASSWORD
mehedi35@gmail.com	******
zahid30@gmail.com	******
bijoy25@gmail.com	******
	LOGIN

3. **Add project:** By coming here, all the teams of each batch can complete the information and submit the project GitHub link.

Table Name: Add Project Table

Id	Project_Name	Batch_Number	Project_Team_Number	Created_Date
01	Lost & Found	52	01	28-07-2023
02	The Project Hub	52	02	05-07-2023
				SUBMIT

4. **Search and Filters:** In this section, users to search for project ideas based on different criteria. Additionally, provide filters to refine search results.

Table Name: Searching Table

Project_Name	Batch_number	Project_Team_Number
Lost & Found	52	01
Project2	51	03
Project3	49	01

Search...

1. Lost & Found   52   01.
2. Project2   51   03.
3. Project3   49   01.
4. Project4.. See more…

5. **Rating and Reviews:** Allow users to rate and review projects. This will help students get feedback and recommendations from their peers.

Table Name: Review table

Id	Rating_ Number	Comment	Project_Id
01	5	Good	01
02	4	Good	02
03	5	Better	03

Review

Rating: ★ ★ ★ ★ ★

Comment:

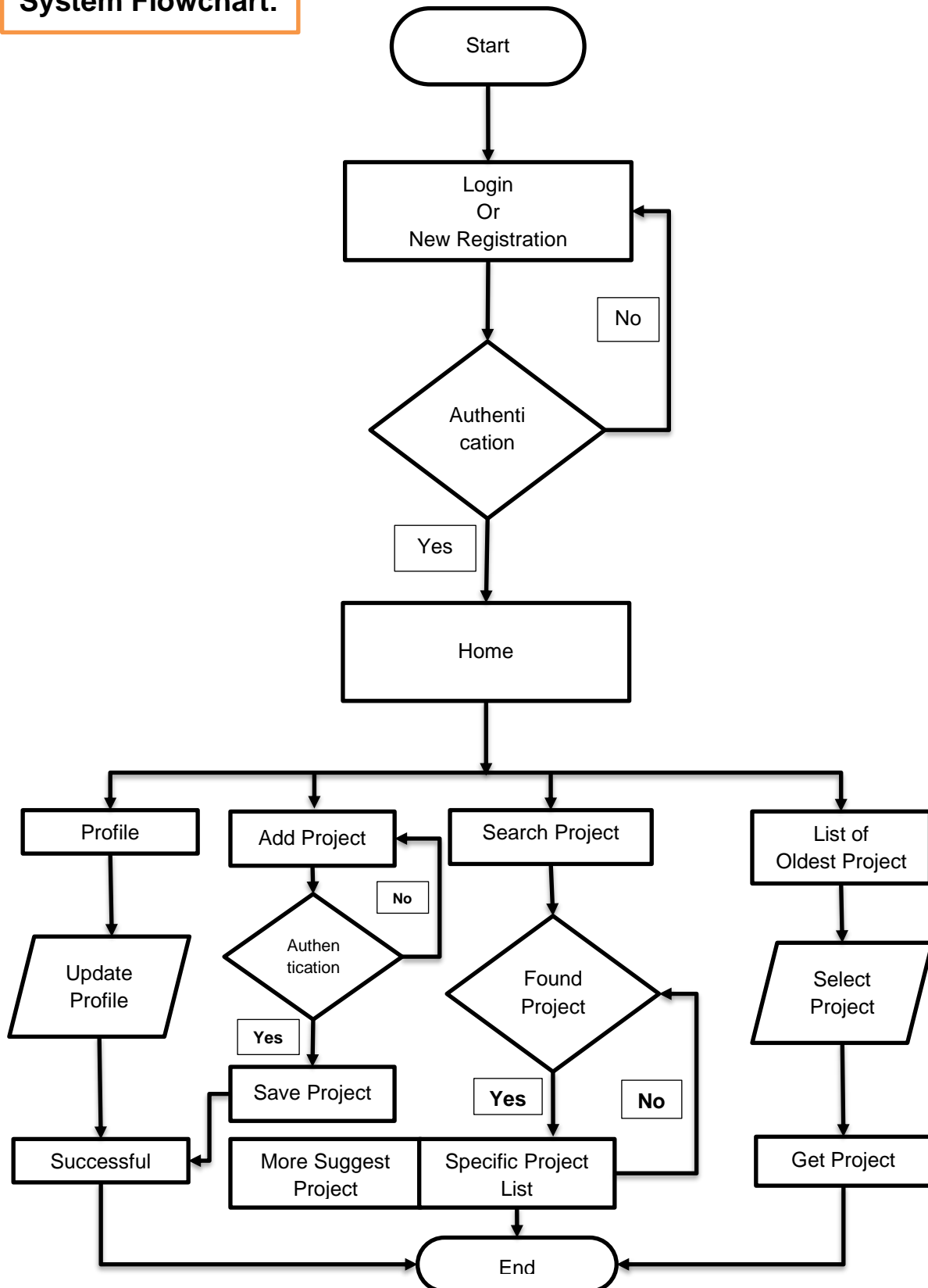6. **Discussion Option:** A discussion forum where students can ask question and get advice.

Table Name: Discussion Table

Sender	Message	Receiver
User	Any message	Admin

Project Hub
Active

Type your message…

Start

Login
Or
New Registration

No

Authenti
cation

Yes

Home

Profile

Add Project

Search Project

List of
Oldest Project

No

Update
Profile

Authen
tication

Found
Project

Select
Project

Yes

Yes

No

Save Project

Successful

More Suggest
Project

Specific Project
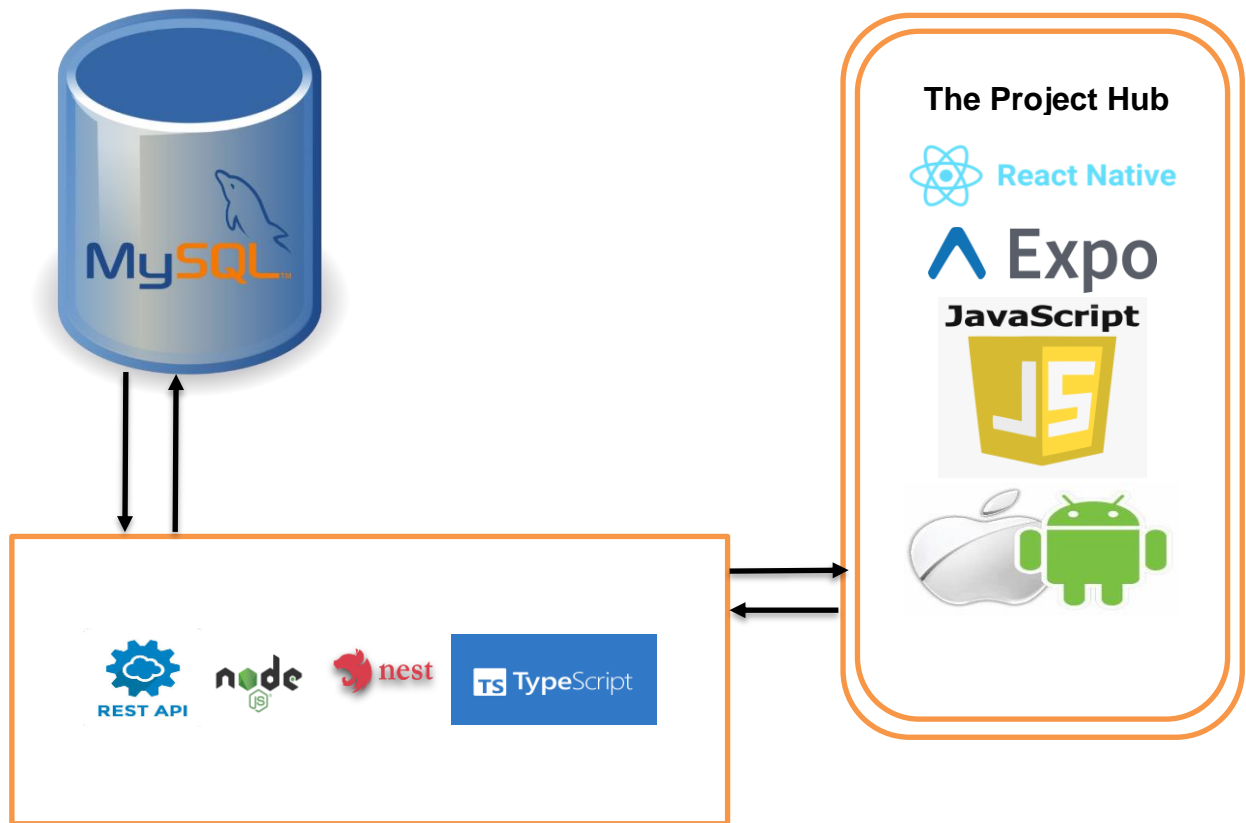List

Get Project

End

Technical Stack Diagram

Figure: Technical Stack Diagram (The Project Hub)

Required Tools

Software:
- **Operating System:** Ubuntu
- **Documentation Tool:** Microsoft Word Docs
- **Code Editor:** Microsoft Visual Studio Code. (VS Code)

Programming Language:
- JavaScript
- TypeScript

Compiler:
- **Expo CLI:** Expo is an open source platform for making universal native apps for Android, iOS and the web with JavaScript and React.

Frameworks:
- React Native
- Nest JS (Node.js)

Database:
- MySQL

Software Development And Version Control Tool:
- GitHub

Deployment:
- Firebase

Estimated Duration and Time Frame

Gantt chart

Task	Estimated Time (Weeks)															
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th
Planning	█	█														
Design		█	█	█												
Coding				█	█	█	█	█								
Development & Programming						█	█	█	█	█						
Testing & Debugging										█	█	█	█	█		
Documentation & Reporting															█	█
Deployment																█

Conclusion

In conclusion, the Project Hub app provides a comprehensive platform for submitting and obtaining information about various types of software projects for university students. By allowing users to submit their projects, the library app fosters a collaborative environment where project owners can gain visibility and engage with potential contributors. Additionally, users looking for project opportunities can easily browse through the app to find projects that align with their areas of interest and expertise. Its user-friendly interface and well-organized structure make it an indispensable resource in the Universities final year project landscape.