PROJECT PLAN DOCUMENT

Project number	21
Project Title	Question Bank Service
Document	Project Plan
Creation date	31st January, 2024
Created By	Divyarajsinh Mahida : 2022101085 Ansh Chablani: 2022111031 Shreyas Badami: 2021113003 Siddharth Singh: 2021113001
Client	Priya Raman, Raj Agnihotri, Ravi Kiran

Brief problem statement

WIth this project we aim to build a "Question Bank Service" proposed to be used by users visiting the virtual labs website.

It shall serve as a platform for users to retrieve and upload questions to aid in their learning process.

It would also include features like "Ranking of Questions based on their Tags and Difficulty", "Multidimensional Tag Suggestion and Search".

Also a separate backend and frontend application is to be made, alongside a custom API needs to be designed and implemented.

Team Members

We have broadly divided our team into two parts: one handling the front end and other handling the backend part of the project.

Please note: This is an initial bifurcation, some work may be done by the other team as and when need arises.

Name	Roll No	Domain
Ansh Chablani	2022111031	Back End + Front End
Divyaraj Mahida	2022101085	Back End + Front End
Siddharth Singh	2021113001	Front End + Backend
Shreyas Badami	2021113003	Front End

Team Communication

The team uses the following tools for communication:

Name	Purpose	Frequency
WhatsApp Group Chat - Internal	For group members to communicate with themselves.	Regularly, depending on the necessity
WhatsApp Group Chat - With TA	For group members to raise common doubts with the TA.	Frequently, depending on the necessity
Slack	Regular Communication with	In 2-3 days, sharing progress

	the Client.	updates and raising questions
Google Meeting with Client	Regular meeting aimed at discussing the updates over the course of the week.	Weekly
Face-to-Face discussion	To better discuss the certain aspects of the work typically aligned for the week.	Mostly weekly + whenever needed otherwise.

Development Environment

We are using the following tools for building our project:-

Name	Purpose	Domain
React JS	JS + JSX to be used as the language for developing the frontend of our application using React libraries.	Frontend
Firebase CLI	Use as a 3rd party PaaS/BaaS service	Backend
Gitlab	Version Control, Collaboration among team members	Collaboration, Version Tracking and Safe Keeping
Github	Version Control, Collaboration among team members	Collaboration, Version Tracking and Safe Keeping
Slack	Communication between Team and Client	Real Time + Async Communication
Selenium	Web Automation for Testing	Web Automation
Pytest	To test features in our application.	Testing
Express JS	Used in the backend part of our application.	API Request and Response

Milestone Schedule

Milestone	Due Date	Release	Deliverable?
Understand Project on a high level, get the setup ready	25/01/2024	R1	No
Complete Requirements Phase, Documentation	31/01/2024	R1	Yes
Make a high-level design of the website.	05/02/2024	R1	Yes
Make user authentication page	07/02/2024	R1	Yes
Modify and design Question Schema and make question input portal	12/02/2024	R1	Yes
Work on Question Feed to Server service	22/02/2024	R1	Yes
Display all questions on a portal, specific to topics.	15/03/2024	R1	Yes
Set up preliminary Automated Testing	10/03/2024	R1	Yes
Set up search filtering	14/03/2024	R1	Yes
Set up Tag Autocomplete	14/03/2024	R1	Yes
Update All Documents	14/03/2024	R2	Yes
Make Dashboard for Users	14/04/2024	R2	Yes
Understanding backend-frontend separation process.	24/03/2024	R2	No
Design APIs	30/03/2024	R2	No
Implement API service	03/04/2024	R2	Yes
Set up markdown text rendering	03/04/2024	R2	Yes
Integrate the API service to frontend application.	05/04/2024	R2	Yes
Options to upload images.	05/04/2024	R2	Yes
Add third party signup and login (Google Authentication).	08/04/2024	R2	Yes

Include statement validators	12/04/2024	R2	Yes
Set up automated testing for the backend application and new features.	20/04/2024	R2	Yes
Complete documentation for the website	18/04/2024	R2	Yes
Finalize the product	20/04/2024	R2	Yes
Deploy the Final Application	20/04/2024	R2	Yes