

Introduction

‘Get Guidance’ is a MERN (MongoDb, Express Js, React Js, Node Js) based web application. This website is developed to solve the problem of lack of communication between seniors and juniors. ‘Get Guidance’ will be a perfect site for the interaction of students. This site is completely responsive i.e. it is accessible through any device like smartphone, laptop, tablet etc. It also has feature of writing articles where students can write the articles of their interest. Some features of this site are:

- Ask Questions and get Answers.
- Anyone can give answers to the queries.
- Up Vote and Down Vote options.
- User can comment and share the post.
- Time Stamps of questions and answers.
- Google authentication, Login and Logout.
- Text Editor for writing answers.

Technology Used



Figure 1 React Js

React Js – This web app uses React Js for the frontend part. React is a JavaScript library created by Facebook. React is a User Interface (UI) library. React is a tool for building UI components

React (also known as React.js or ReactJS) is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta (formerly Facebook) and a community of individual developers and companies. React can be used as a base in the development of single-page, mobile, or server-rendered applications with frameworks like Next.js.



Figure 2 Node Js

Node Js- It used Node Js for the backend part.

- Node.js is an open source server environment
- Node.js is free
- Node.js runs on various platforms (Windows, Linux, UNIX, Mac OS X, etc.)
- Node.js uses JavaScript on the server

Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser. Node.js lets developers use JavaScript to write command line tools and for server-side scripting—running scripts server-side to produce dynamic web page content before the page is sent to the user's web browser.



Figure 3 MongoDB

MongoDB – MongoDB is an open source NoSQL database management program. NoSQL is used as an alternative to traditional relational databases. NoSQL databases are quite useful for working with large sets of distributed data. MongoDB is a tool that can manage document-oriented information, store or retrieve information.



Figure 4 Chakra UI

Chakra UI: Chakra UI is a simple, modular and accessible component library that gives you the building blocks you need to build your React applications.



Figure 5 Mongoose

Mongoose: Mongoose provides a straight-forward, schema-based solution to model your application data. It includes built-in type casting, validation, query building, business logic hooks and more, out of the box.



Figure 6 Express Js

Express Js: Express is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications.

Working

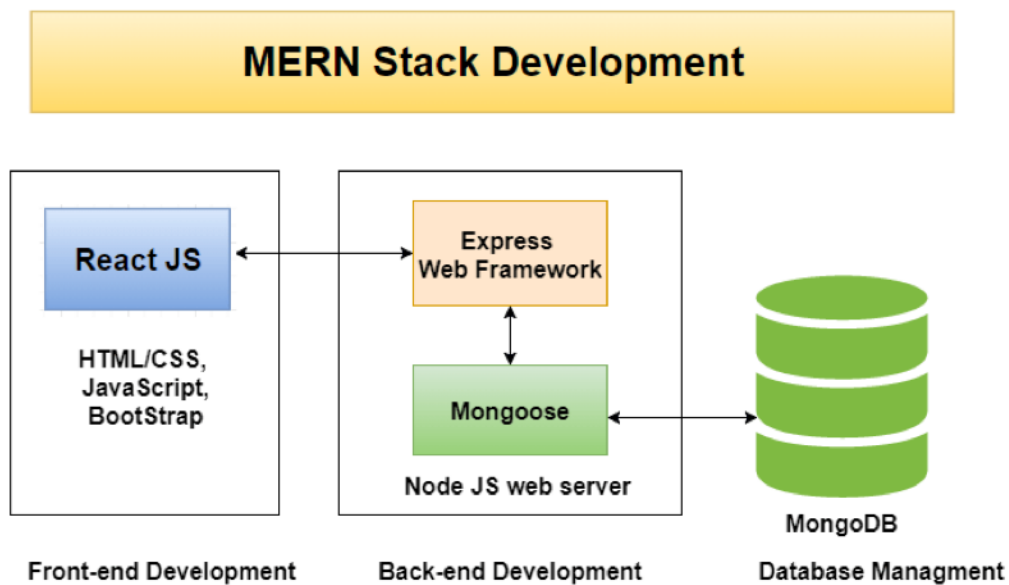


Figure 7

Figure 7 shows how the frontend part and backend part communicates.

Feasibility Study

A feasibility study is simply an assessment of the practicality of a proposed project plan or method. This is done by analysing technical, economic, legal, operational and time feasibility factors.

- **Technical Feasibility:** - This project requires the MERN Stack technologies and a MERN stack developer and it is easily available. So this project is completely technical feasible.
- **Economic Feasibility:** - Deployment of this project requires web hosting for the commercial purpose. But for the trial purpose, it will be uploaded on the 'Heroku' Platform which is completely free.
- **Time Feasibility:** - Development and Deployment will be done in a timely manner. Development phase will be completed in 2 – 3 months and deployment requires 2-3 days only.

Need of Project

- Till Now there is no integrated platform to provide communication between seniors and juniors.
- This web app has separate section for writing article so that students who are good at academics can share the resources, content and much more.
- Real time updates of College Events, recruitments.

Significance of Project

The significance of the project is to provide the following benefits:

- Easy Communication between students.
- Interests Section – For the students having interests in same TECH/FIELD.
- Updates of Events, holidays, recruitments etc.
- Article writing Facility
- Fully responsive

Methodology/Planning of work

The development of the project involves various phases that are elaborated below:

Development of the frontend (UI): - First step to develop this project is to develop the attractive and fast UI for the students. UI of this project will be based on the React Js. Developing the UI will take approximately 15 days of time.

Development of the backend (Database and middleware):- After the development of the UI, next step is to create the database for the project and developing the middleware to connect the frontend part with the backend. MongoDB and Node Js will be used for this purpose respectively.

Deployment of the project: - This phase requires the deployment of the project on the Web Hosting platform.

Sharing: - Web app will be shared among the users

Working: Figure 8 shows the working of the project:

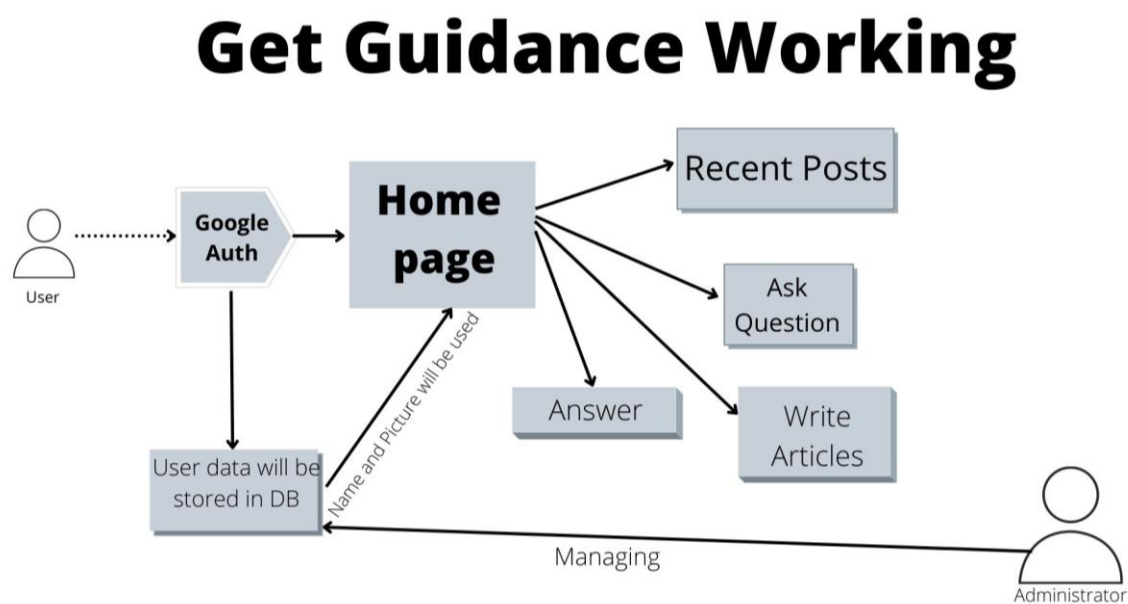


Figure 8 Working of Project

Google Authentication: - User is logged in through Email Id.

Home Page: - Recent posts (questions) will be displayed here.

Ask Question: - When user click this button, a new pop up window will appear in which user can add their question with or without an image.

Write Articles: - User can also write articles about various topics.

Answer: - Every question has an answer button. When user clicks this button a new pop window with a text editor will open in which user can write, format and add their answer.

Facilities required for the proposed work

The software/tools and the hardware required for this project are

Software/Tools

- Text Editor – Vs Code
- NPM
- POSTMAN – for testing APIs
- Node Js
- MongoDB Compass – for managing database

Hardware

The following table lists the minimum and recommended hardware requirements for the web application.

Component	Minimum	Recommended
1. Processor	1.9 gigahertz (GHz) x86- or x64-bit dual core processor with SSE2 instruction set	3.3 gigahertz (GHz) or faster 64-bit dual core processor with SSE2 instruction set
2. Memory	2-GB RAM	4-GB RAM or more
3. Display	Super VGA with a resolution of 1024 x 768	Super VGA with a resolution of 1024 x 768

Bibliography

<https://stackoverflow.com/>
<https://chakra-ui.com/>
<https://reactjs.org/>
<https://nodejs.org/>
<https://www.mongodb.com/>
<https://www.npmjs.com/>
<https://www.youtube.com/>