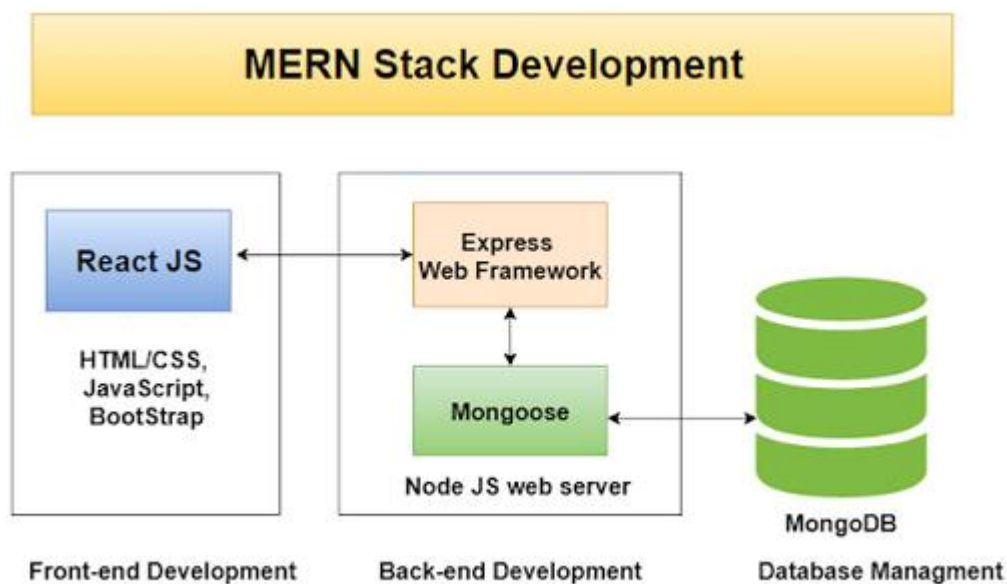


PROJECT DOCUMENTATION

- **Project Name:**
 - University Registration Form
- **Overview of this project:**
 - A simple MERN Stack application that takes user input and stores the data in MongoDB Database and display only the name and the stream of the registered candidates in the frontend.
- **Most important aspects of quality software:**
 - **Maintainability** - how modularized is the software and what is the effort to maintain and debug the source code.
 - **Testability** - how does this software meet the objectives and how it is tested (auto tested or manual tested).
 - **Usability** - is it well documented and are there enough instructions to setup development environment.
- **Outline of a standard high-level structure of a MERN Stack application and explain the components:**



- **Front-end development:**

The front-end component responds to end user interactions and the communication with server. In the structure displayed above, it uses React JS as its main framework which handles the user interactions and renders the information received from server.

- **Back-end development:**

The back-end component responds to front end requests and database management. Express web framework is an open-source and light weighted web framework for Node JS. And Mongoose is the main database for MERN development as other databases like SQL are not compatible with Node JS.

- **Database management:**

MongoDB is the native driver for interacting with a mongoDB instance. In this example, it is used as the shell for Mongoose.

- **External dependencies used in this project:**

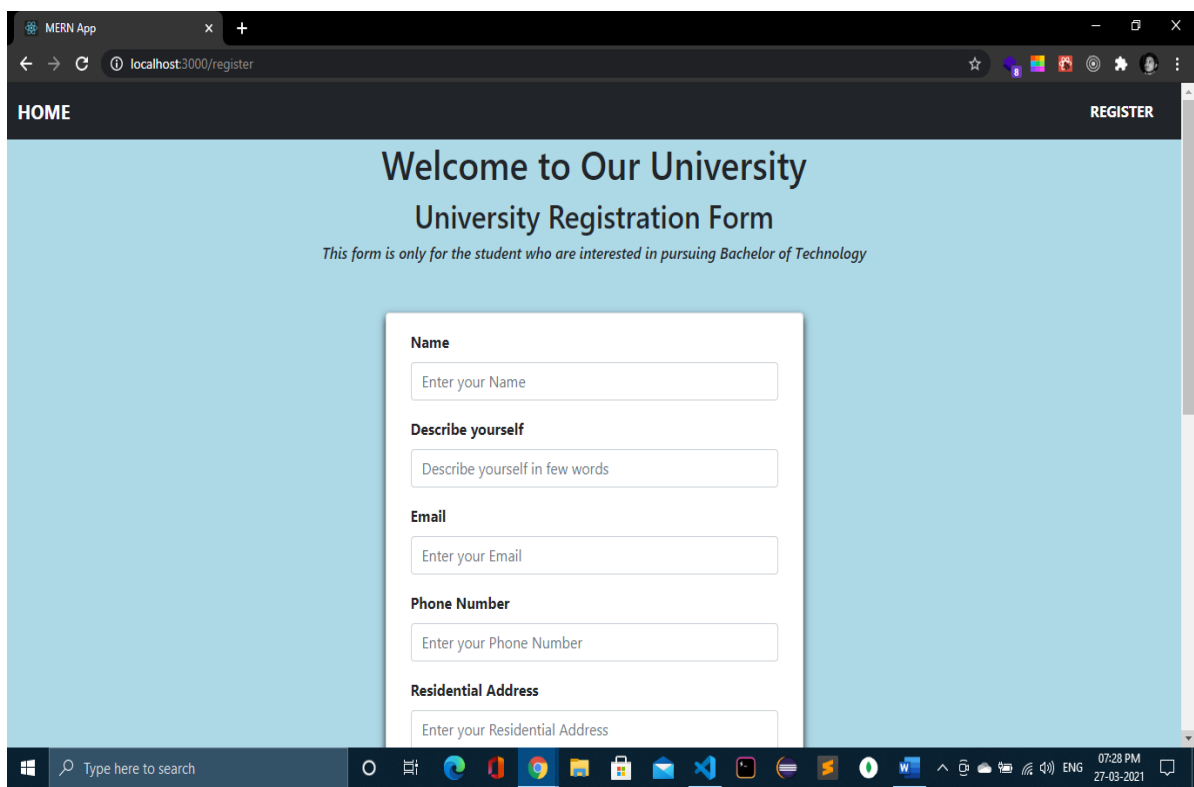
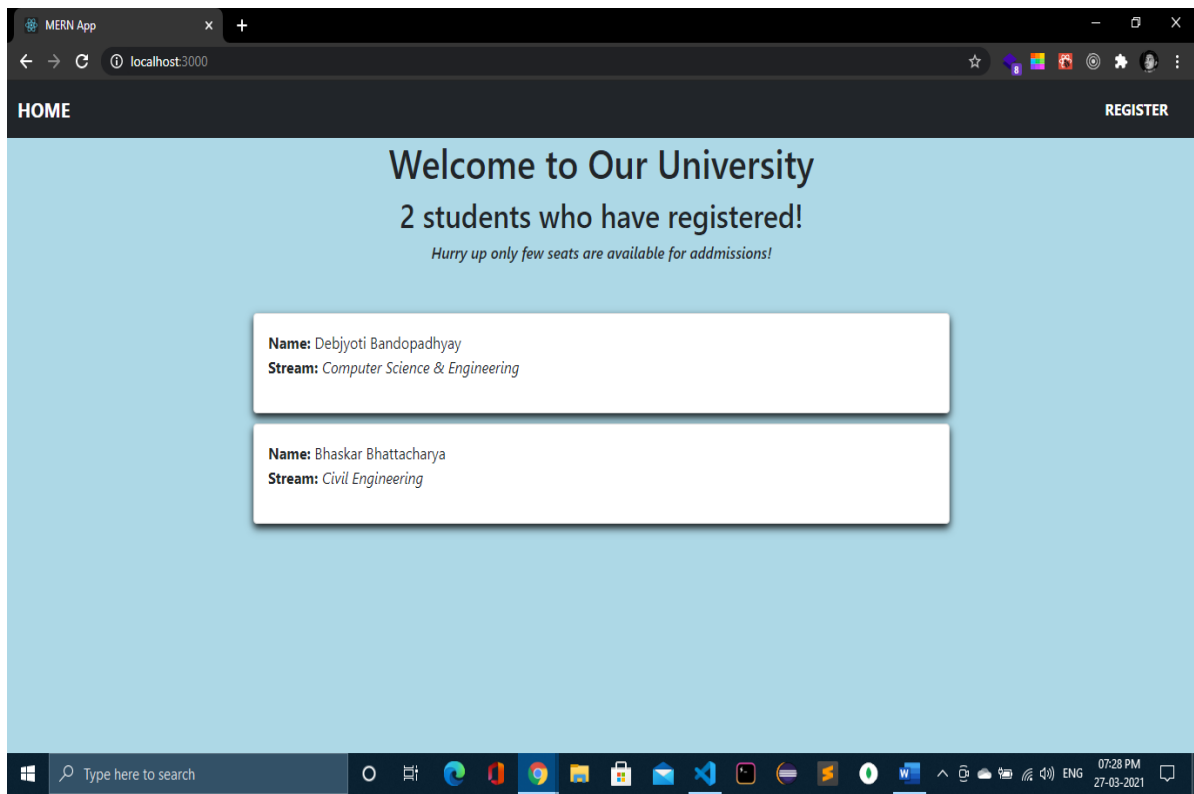
- **Front-end Dependencies:**

- **Axios:** It's a promise-based HTTP client for the browser and node.js
- **Bootstrap:** It's a Sleek, intuitive, and powerful front-end framework for faster and easier web development.
- **Http-Proxy-Middleware:** it's a Node.js proxying made simple. Configure proxy middleware with ease for **connect, express, browser-sync** and **many more**.
- **React-Router-Dom:** DOM bindings for **React Router**.

- **Back-end Dependencies:**

- **Concurrently:** It's a Run multiple commands concurrently. Like `npm run watch-js & npm run watch-less` but better.
- **Dotenv:** It's a Dotenv is a zero-dependency module that loads environment variables from a `.env` file into **process.env**. Storing configuration in the environment separate from code is based on **The Twelve-Factor App** methodology.
- **Express:** It's a Fast, unopinionated, minimalist web framework for **node**.
- **Mongoose:** it's a Mongoose is a **MongoDB** object modelling tool designed to work in an asynchronous environment. Mongoose supports both promises and callbacks.
- **Nodemon:** It's a nodemon is a tool that helps develop node.js based applications by automatically restarting the node application when file changes in the directory are detected.

- Screenshots of the projects:



MERN App × +

localhost:3000/register

Date Of Birth

dd-mm-yyyy

Gender: ☐ Male ☐ Female ☐ Other

Educational Qualification

10th Standard

Enter your school board name

Enter your Percentage

12th Standard

Enter your school board name

Enter your Percentage

Stream

Choose Your Stream

Submit

Data | Atlas: MongoDB Atlas × +

cloud.mongodb.com/v2/6059f6d12f287e58944906c0#metrics/replicaSet/605df4d821613f04942748cf/explorer/react-node/users/find

Debjyoti's Org - 202... Access Manager Support Billing All Clusters Debjyoti

MERN Atlas Realm Charts

```
{
  "_id": "605ed444b56e9a3980b707b7",
  "name": "Debjyoti Bhandopadhyay",
  "description": "Interested in Web Development",
  "email": "djbdebo04@gmail.com",
  "phoneNumber": 6289288356,
  "address": "Kolkata:132",
  "dateOfBirth": "2000-01-13T00:00:00.000+00:00",
  "gender": "Male",
  "tenthSchoolName": "CBSE",
  "tenthPercentage": 70,
  "twelfthSchoolName": "CBSE",
  "twelfthPercentage": 55,
  "stream": "Computer Science & Engineering",
  "__v": 0
}
```

```
{
  "_id": "605f2e8d3447a549848622df",
  "name": "Bhaskar Bhattacharya",
  "description": "Govt. Job Seeker",
  "email": "bhaskar@gmail.com",
  "phoneNumber": 9876543210,
  "address": "Kolkata",
  "dateOfBirth": "1998-01-01T00:00:00.000+00:00",
  "gender": "Male",
  "tenthSchoolName": "WBSE",
  "tenthPercentage": 100,
  "twelfthSchoolName": "WBSE",
  "twelfthPercentage": 100,
  "stream": "Civil Engineering",
  "__v": 0
}
```

Feature Requests

- Screenshots of the testcases:

A screenshot of a web browser displaying a registration form titled "Welcome to Our University" and "University Registration Form". The subtitle reads "This form is only for the student who are interested in pursuing Bachelor of Technology". The form is centered on a light blue background. It contains several input fields: "Name" (filled with "Trina Dasgupta"), "Describe yourself" (filled with "Programmer"), "Email" (filled with "trina@email.com"), "Phone Number" (filled with "0123456789"), and "Residential Address" (filled with "Kolkata"). The browser's address bar shows "localhost:3000/register". The Windows taskbar at the bottom shows the time as 07:34 PM on 27-03-2021.

HOME REGISTER

Welcome to Our University

University Registration Form

This form is only for the student who are interested in pursuing Bachelor of Technology

Name
Trina Dasgupta

Describe yourself
Programmer

Email
trina@email.com

Phone Number
0123456789

Residential Address
Kolkata

A screenshot of the same web browser displaying the second part of the registration form. It includes a "Date Of Birth" field (filled with "01-01-1991"), a "Gender" section with radio buttons for "Male", "Female" (selected), and "Other", and an "Educational Qualification" section. Under "10th Standard", there are two fields filled with "WBBSE" and "100". Under "12th Standard", there are two fields filled with "WBBSE" and "100". A "Stream" dropdown menu is set to "Information & Technology". A green "Submit" button is at the bottom. The browser's address bar shows "localhost:3000/register". The Windows taskbar at the bottom shows the time as 07:34 PM on 27-03-2021.

Date Of Birth
01-01-1991

Gender: ☐ Male ☒ Female ☐ Other

Educational Qualification

10th Standard
WBBSE
100

12th Standard
WBBSE
100

Stream
Information & Technology

Submit

