

# Portfolio Website Using React JS

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**Abstract:** We live in the internet era where IT sector is growing rapidly in our day-to-day life. so companies, agencies, services and pretty much every business or organization needs a website. A portfolio website is an online entity which showcases all our works, skills and experiences. Building a portfolio website is a professional way to showcase our works, experiences or brand. Through this website, searchers or employers are able to have a glimpse of our works. It helps in giving the employer a chance to observe our work at their spare time, allows them to discover about us in a comfortable setting. The candidate who applies for jobs can make a portfolio website which displays their academic profile, his skills, the projects on which they had worked on. They can provide its link in their resume. If a hiring person sees a link in our resume, they will most likely check it out. Through this, with the sea of applicants and competition in jobs, we can be able to stand out and have an edge over other candidates. This website will also make it easier for clients or employers to view our works when they look for us in any SEO (Search Engine Optimization).

**Keywords:** Full-Stack, ReactJS, JavaScript, Client-Server, MYSQL, HTTP

## I. INTRODUCTION

IT sector was transcending in an efficient manner throughout the market. Many people are trying to show about themselves through online entities like website/blogs etc. Many companies/Organizations are trying to survive in this competitive IT sector by having efficient official websites in the internet. This brings us to develop our project using trending topics in the market today which are very popular and has a large scope. The aim of our Project is to create a website which can showcase our skills, current & previous works, and experiences. A candidate who is searching for jobs can deploy a portfolio website in which he displays his works, projects he had worked on, his major skills, services offered, any certifications, awards etc. In many cases, the website

itself can serve as a testament to the candidate's website design & developing skills. By providing their website's link the Resume, he/she can stand out and have an edge over all the other candidates. A website which shows the basic & updated information about the companies is an important entity for them. Through our website, a client /employer can also write a recommendation about the employees working under them. In this way, portfolio website can serve many useful purposes.

The main aim of our project is to build a website which showcases our works, skills, experience. This website is built using latest trending technologies which we were trained on, during the internship period in our company. We have used those skills to make a real time project. We have used technologies like HTML, CSS, JAVASCRIPT for front-end. BOOTSTRAP framework and REACTJS library is used for frontend. Python & Flask servers and MYSQL database for back-end. Our website consists of major components like User, Admin, API/Server, Database. A user can access the website pages, add recommendations and use contact-me section. Admin can add projects, render components and pages and styles webpages. Server takes the requests from client/user, renders REACTJS components, tries to retrieve the requested data from database. If found that appropriate data, then it will return the data in JSON format to front-end server. Then the front-end server returns a completed HTML file with data. Then, user can see the whole page with data & components according to his/her request.

## II. LITERATURE SURVEY

Full stack

Full stack development, in its simplest terms, is developing the front-end (client side) and back-end (server side) components of a website. Full stack developer is a one-man army specialist who can work with front-end, back-end and Database. Full stack developer can replace the job of any other person in a

company as he can do the job of a front-end developer, he can build scalable servers, that's what makes a full stack developer a valuable asset to any company.

#### HTML/CSS

HTML is the standard markup language for creating webpages. CSS(Cascading Style Sheets) is the language used to style ourwebpages.

#### JAVASCRIPT

It is a text-based coding or scripting language that may be used on both the client and server sides. It is used to add component-based technique in which we create pages by breaking them down into individual components.

#### React JS

React JS is a java-script library used to create front-end sites with dynamic functionality. React is a component-based technique in which we create pages by breaking them down into individual components. The primary goal of React is component reusability and dynamic functionality between various pages of a website or application.

#### BOOTSTRAP

It is the front-end framework used for easier & faster web development. It helps to create responsive designs.

#### Flask

Server which is capable of running HTTP requests on public World Wide Web, Private LANs & Private WANs

#### PYTHON

Python standard library comes with an in-built webserver which can be invoked for simple web client server communication. The port number can be assigned programmatically, and the web server is accessed through this port.

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#### PROPOSED SYSTEM

Through making a portfolio website, one's designing & developing skills can be enhanced in an efficient manner. If we provide website's link in our resumes, the employer will most likely open it and view our works. By this, they can know what we are capable of and it gives them the opportunity to trust us and our work. Our website consists of different sections like :

##### Title & Footer Section:

In the title section, there will be a profile picture, name & occupation of the ADMIN.

Footer section consists links like contact me, Home and some font-awesome icons of LinkedIn, Github etc

##### Navigation Bar:

It consists of the main menu, and a hamburger icon which provides some links.

About Me section:

In this, we can add some description about us and mention our technical skills, academic profile in brief.

Projects Section:

This section showcases our works and projects on which we have worked on.

Technology Stack:

It consists of the candidate's skills and the technologies which are used by the candidate in designing and their professional career.

Recommendation Stack:

Though this section, we can recommend many candidates and give review about their skills and their nature of working. Basically, this section will be used by organisations where a client can write a recommendation about his/her employee.

Creating a React application using html5, css3, Javascript4 and react.js for frontend and backend using python code is written inJSX which is extension of javascript. Jsx stands for javascript XML , it allows us to add html-like markup inside javascript. JSXis not supported by browsers(It's compiled to JS).React application is developed using components. They are 2 types of components :

Functional Components

Stateful components

Lifecycle methods

Handle data fetches

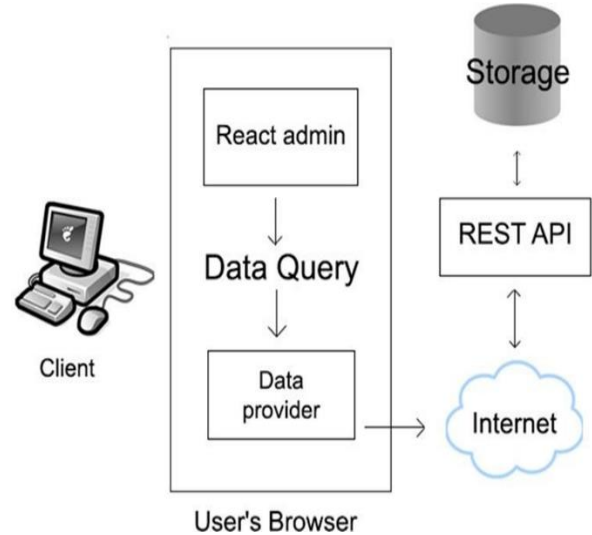
Class Components

Stateful components

Lifecycle methods

Handle data fetches

## ARCHITECTURE OF PROPOSED SYSTEM



In our project there are functional components like navbar, title\_Section, Aboutme\_section, Footer\_section and page\_not\_found which are stateless. The other are class components like skills\_section, projects\_section, Addproject\_section, Write-a- recommendation\_section, recommendation\_section, Contactme\_section.

All the data is stored in the class component context.js a javascript file which acts a provider, and all other components use this data for rendering data on the website. Any component can use this data.

Context.js retrieve data from the server and provide data to the consumer components.

Backend

The project consists of a Flask application made using python libraries which connects to the MYSQL database which runs on the server. It retrieves data from the database and sends to the client and gets data from the client and stores in the database. It follows http protocol. It stands for HyperTextTransferProtocol. Hypertext is a text which contains links to other texts, protocol means a set of rules for governing data.

It is used to deliver to deliver contents (HTML, Images, Text, Videos,etc).

Client-Server

Client sends request for information to the server. Server serves the request of the client .server and client are program that can be written in any program language. Client can be a website on the browser and server is accessible over the network.

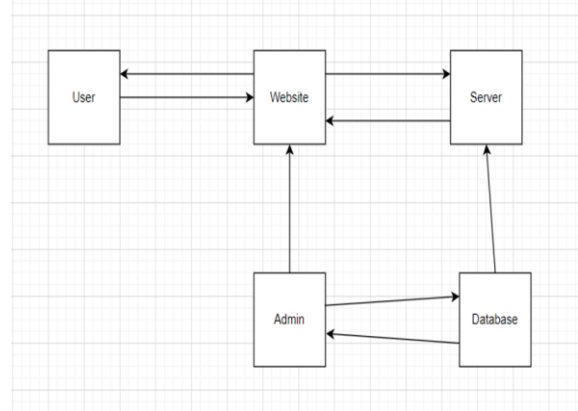
There are http methods used for sending and retrieving the data.GET-Must be used to retrieve the data.

PUT-submitdata/resource to the server  
 POST-save data at the given uri DELETE-used for deleting resources

REST  
 REST STANDS FOR REPRESENTATIONAL STATE TRANSFER.REST is a software architectural style that defines a set of rules for building web services. It is a way is http is used. It enforces the use of available http commands for building web services. It has rules which urls must follow like it should contain only nouns not actions or verbs, File extensions should

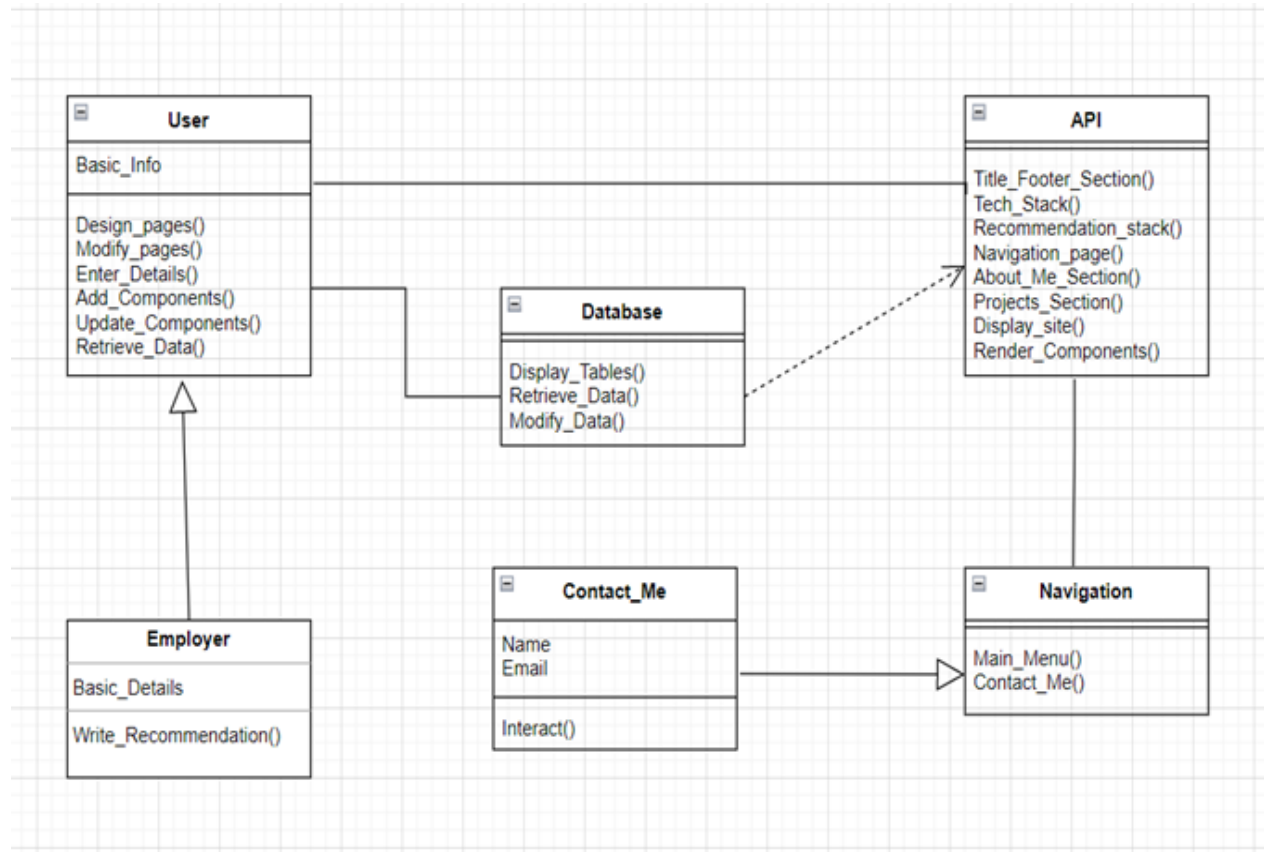
not be used in the URIs, prefer lowercase.

Data Flow Diagram



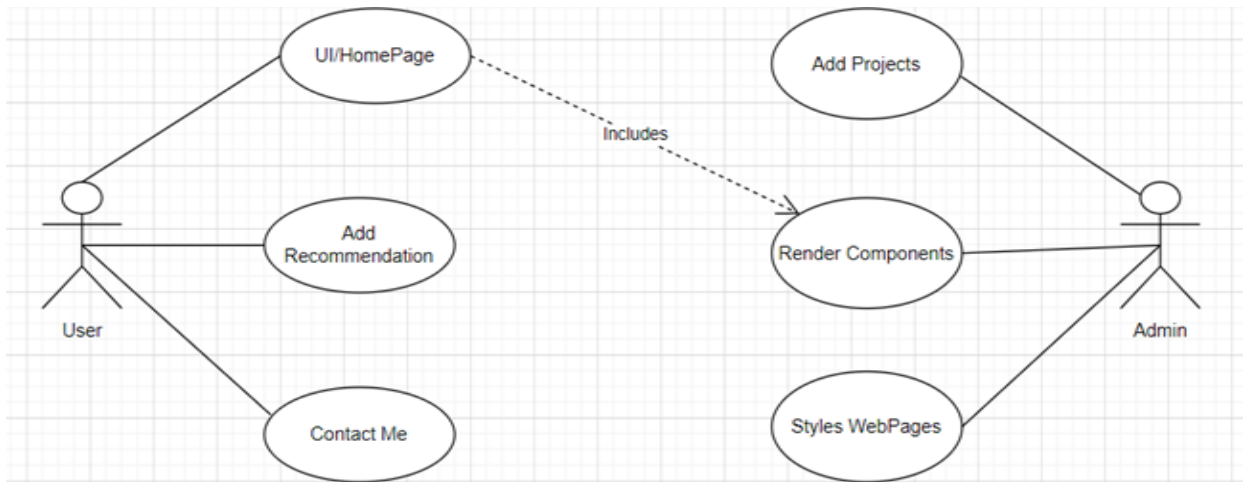
SYSTEM DESIGN

Class Diagram



User is the primary class where there can be functions like designing pages, Updating components, retrieve data from database,adding-projects. There is a Generalization relationship between user-employer and Navigation-ContactMe because they depict parent-child relationship. Data in Database depends upon the API which consists of all the sections of the site. So, there is a dependency relationship between these two.

Usecase Diagram



Use cases of the actor “USER” are :

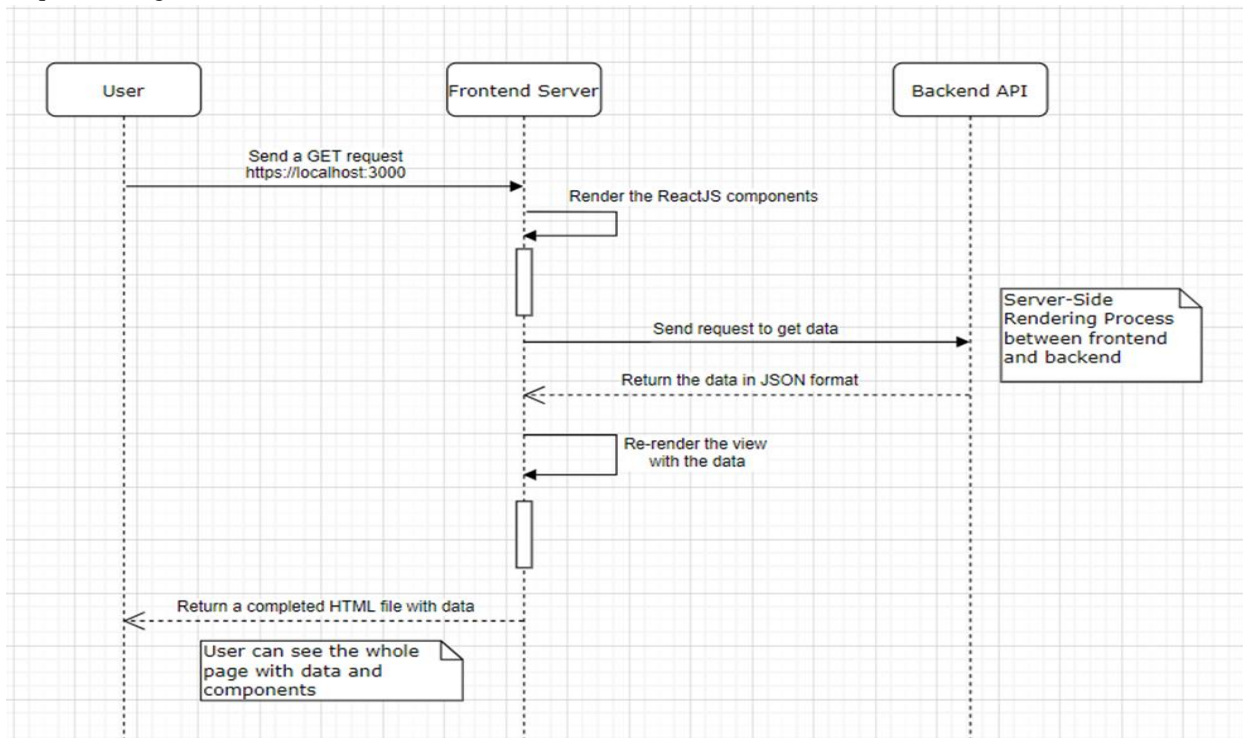
- UI/Homepage
- Add Recommendation
- Contact Me

Use cases of the actor “Admin” are:

- Add Projects
- Render Components
- Styles Web pages

There is includes stereotype between UI and Render Components.

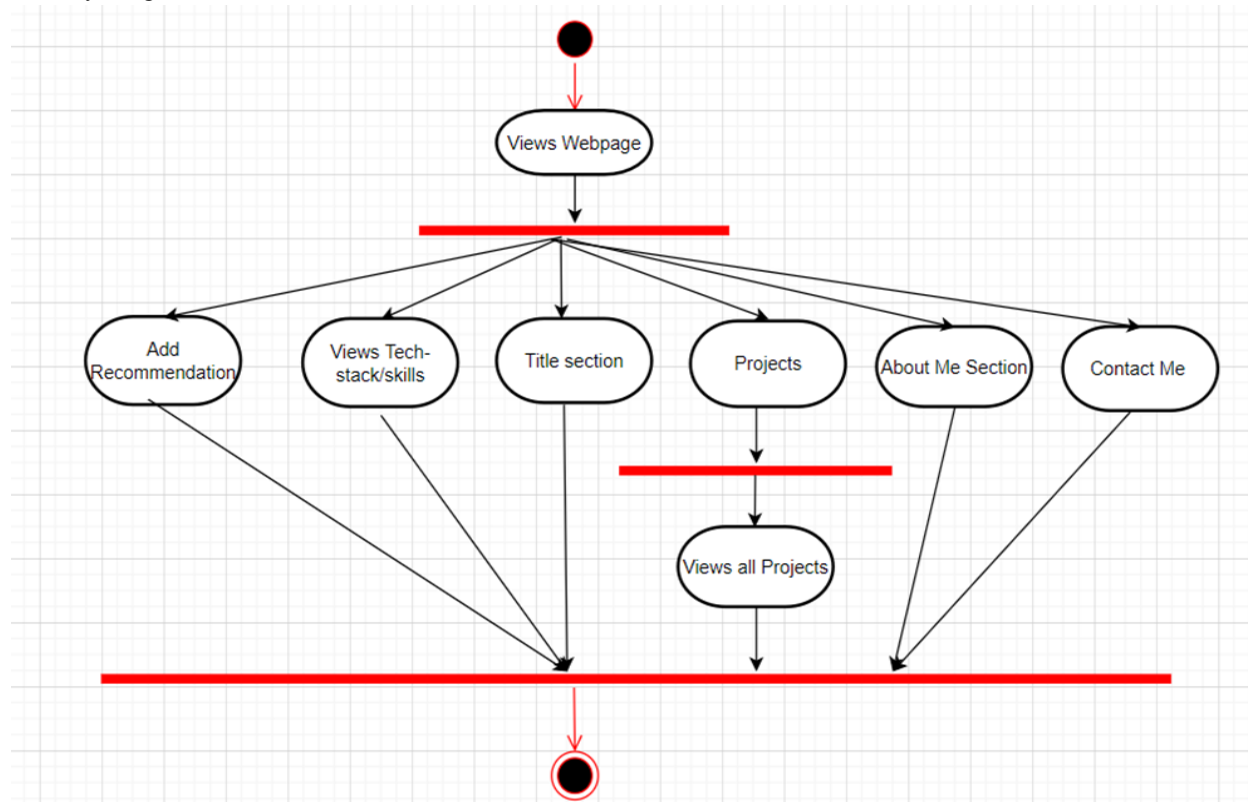
### Sequence Diagram



It mainly emphasizes on time ordering of messages. The objects that participate in the interaction are user, frontend-

server, backend API. The vertical dashed line is the lifeline and tall rectangular bar is the focus of control. Interaction occurs by placing the messages that these objects send & receive.

Activity Diagram



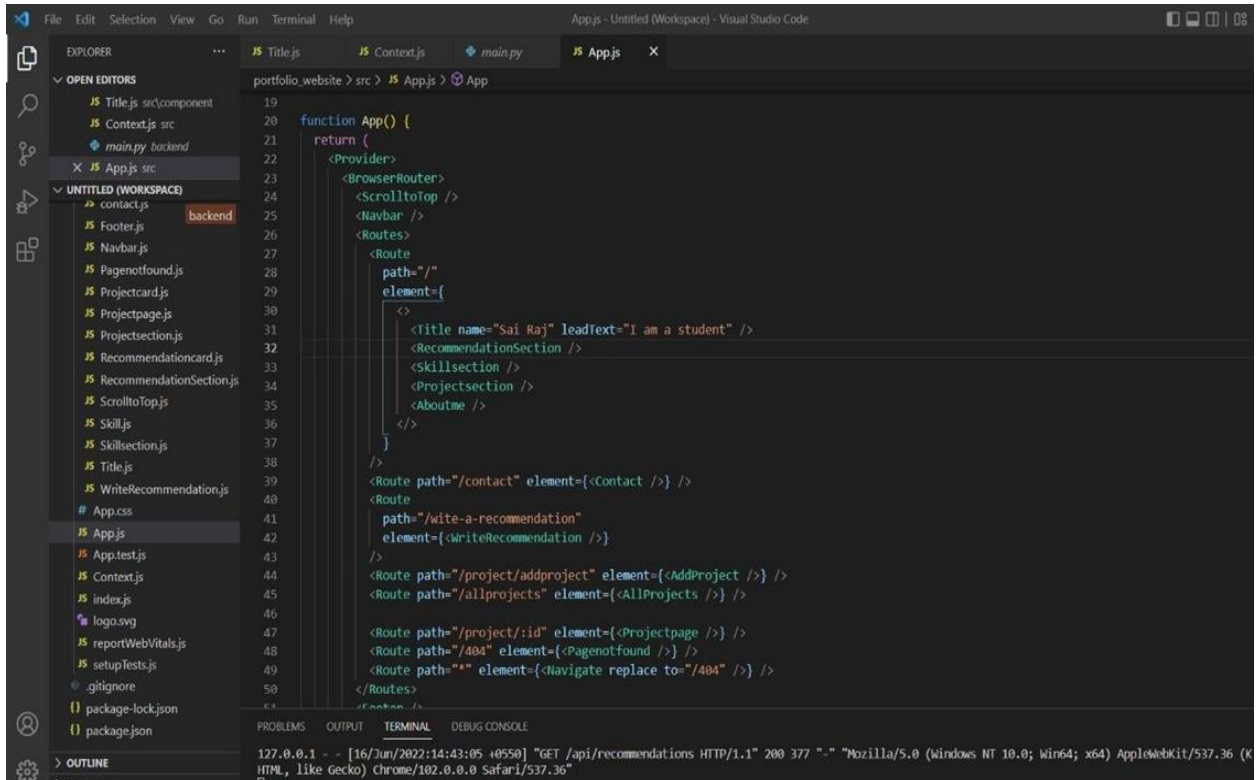
It depicts the flow of control from activity to activity. Action states here are all the round-edged rectangles from start state to final state. There can also be a decision activity which will be in a rhombus shape. This can help in a situation when an activity results to true/false.

SYSTEM IMPLEMENTATION

Run the React application on the local host. At the client-side, the website is viewed on the browser. There are 3 class components which are having data from the context API. As soon as server is launched it retrieves data from the database and send it to the client. The recommendation-section, projects-section and skills-section are changed. It is designed such that if no data is present in the database for particular

component the context API data will be used else data for a particular component or else the data from the database is used. we can add data in the MYSQL database from client side by add-project components, add-recommendation component and add-contact component. The client sends request for server for communication.

The client sends GET HTTP request for retrieving the data from the database or POST HTTP request for storing the data in the database. The needed tables for the website are created in the MYSQL database. The server connects with database with the help of python mysql library. The queries are executed in the server-side, the data will be inserted, updated, fetched based on the http request.



Visual Studio React Code Structure Database


```
mysql> use myportfolio;
Database changed
mysql> show tables;
+-----+
| Tables_in_myportfolio |
+-----+
| blogs                  |
| contact                |
| projects               |
| recommendations        |
| skill                  |
+-----+
5 rows in set (0.03 sec)

mysql> desc projects;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | varchar(36) | NO | PRI | NULL | |
| imageurl | tinytext | NO | | NULL | |
| title | tinytext | NO | | NULL | |
| excerpt | tinytext | NO | | NULL | |
| body  | text | NO | | NULL | |
| isPublished | tinyint(1) | YES | | 1 | |
| lastModified | datetime | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.04 sec)

mysql> desc recommendations;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | varchar(36) | NO | PRI | NULL | |
| name  | tinytext | NO | | NULL | |
| email | tinytext | NO | | NULL | |
| company | tinytext | NO | | NULL | |
| designation | tinytext | NO | | NULL | |
| message | tinytext | NO | | NULL | |
| onShowcase | tinyint(1) | YES | | 0 | |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)
```

## RESULTS & OUTPUTS

Sai Raj [contact me](#) [Projects](#) [Blogs](#)



Hi, I am **Sai Raj**

I am a student

### Home Page

**Thank You!** for your interest

Name \*  
Sai Charan

Email \*  
saicharan11@gmail.com

Company \*  
ABC

Designation \*  
Technical Manager

Recommendation \*  
He is lazy

**Lot's of Love**

Thank you Sai Charan for the recommendation I really appreciate  
An employee was successfully recommended by his Employer

<b>He is a good engineer</b> Random guy 1 CEO at ABC company company	<b>He is a lazy person</b> Random guy 2 Director at ABC company company	<b>He is a good Developer</b> Random guy 3 Developer at ABC company company
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Recommendation stack


## Add Project

Featured Image Url \*  
<https://images.unsplash.com/photo-1488190>

Title \*  
My ProjectZ

Excerpt \*  
yproject is about..

**B I H** 



### My ProjectZ

My project is about the portfolio\_website.It will describes your profile and tells the employers about you skills,projects and about yourselves.

Adding a project card

lines: 1 words: 0 1:1


**Publish**

### Project Published Successfully

Successfully added project added

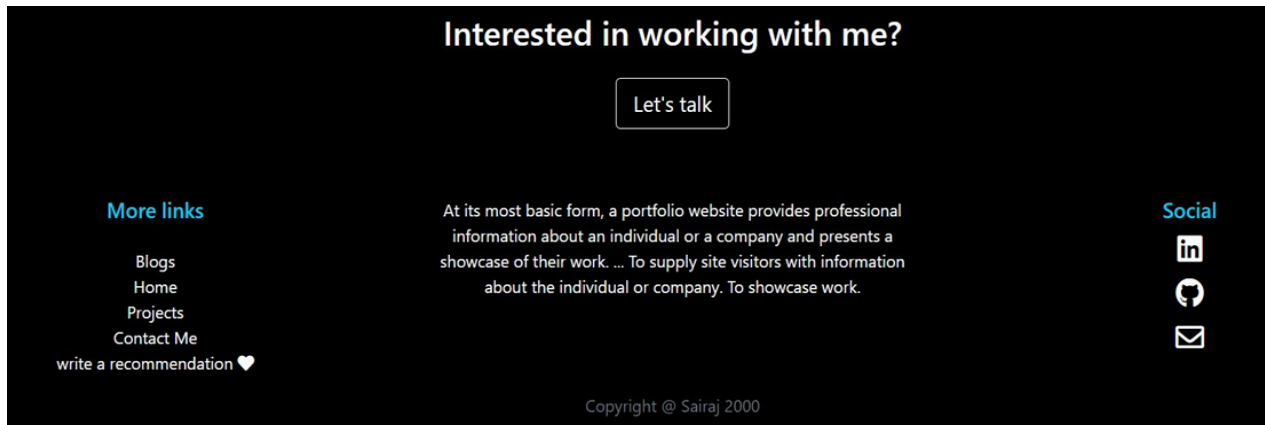
#### Technology stack

I design, develop and deliver with these weapons



### Skills





Footer Section

## CONCLUSION

In today's fast-growing IT industry, everyone needs to know about the updated version of showcasing their professional works and contributions. Our website which is customizable will be helpful in achieving this. It helps in showing who we are and where we are good at, more than a resume do. It also displays our accountability which is an important gesture in maintaining online presence. It can act like a highlight component in candidate's resumes, builds trust, prevents the chance of rejection. As it is an online entity, it adds more weightage to the candidate's profile and makes an easy way to get hired. It also helps the organizations to express what their employees were capable of in a professional manner by preventing other complexive ways. As our website helps in displaying the works, skills & experiences, it can be an ultimate useful entity which would be used widely, there can be more future scope in making this website more efficient by adding authorization components like login-user, which makes it more secure than the proposed system.

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