A Project Report on

RKV Forums

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Submitted to

RK Valley

Under the supervision of
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as a part of
Major project in E4

Acknowledgement

we would like to express my sincere gratitude to **Mr. N. Sathyanandaram sir**, my project internal guide for valuable suggestions and keen interest throughout the progress of my course of research.

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With sincere regards,

V. Sai
C. Anil Kumar
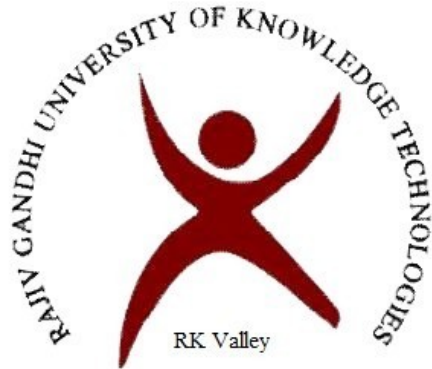
Certificate

   This is to certify that the report entitled "**RKV Forums**" submitted by Sai, Anil kumar in partial fulfillment of the requirement for the award of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by her under my supervision and guidance.

   The report hasn't been submitted previously in part or in full to this or any other university or institution for the award of any degree.

Mr N.Sathyanandaram,   Mrs.C.Ratna Kumari,
Project guide,   Head of the department,
Computer Science and Engineering,   Computer Science and Engineering,
RGUKT,R.K Valley.   RGUKT,R.K Valley.

Declaration

We V.Sai, C.Anil Kumar here by declare that this report entitled "**RKV Forums**" submitted
 by us under the guidance and supervision of Mr.N.Sathyanandaram, is a bonafide work. we also declare that
it has not been submitted previously in part or in full to this university or other university or institution
for the award of any degree or diploma.

Date: 28-04-2021
Place: RK Valley

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Abstract

This Web Application helps user to post and answer a question or doubt. It also provide a large Set of careers and job oportunities. This web application is designed to help all the students at Our univeristy. This web application has large number of previous doubts and where we can find Search a question if our doubt was presviously asked by someone then we can have solution Immediatly, or else we can post our doubt then some one can answer. This also allows user to Answer a question if one has faced same problem and knows how to solve it.

This web application also allows user to look for some career oportunities. This also allows User to post job oportunities which might help others also.

So RKV Forums is a platform where students can help each other solve their respective doubts.

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I.Introduction

We are stuck with technology when what we really want is just stuff that works. With the current paradigm shift in technological field, there is an need to embrace and appreciate the power of technology.

We students are daily learner. We daily learn some new things and technologies. while Learning or adopting those technologies we may face many doubts and problems. We try to solve Those problems by asking our friends or a professor. What if a professor is busy and dont have time To solve our doubts. Even we may have some silly doubts which can be solved by our fellow friends. We cant ask each and every doubts with a faculty right .

With that reason we have developed this web application named RKV Forums which is Helpful for clarifying doubts. A student can clarify his doubts by looking through previously Asked questions or he can post a question describing his problem. User can also post a solution To others question if he knows the answer.

RKV Forums also provides room for career opportunities where user can check through All available opportunities and can use them accordingly.

RKV Forums is an web application developed using web development techniques and based on student requirements.

Web Development :

Web development is the building and maintenance of websites; it's the work that happens behind the scenes to make a website look great, work fast and perform well with a seamless user experience

Real life web applications :

E-Commerce :

E-commerce is the buying and selling of goods or services via the internet, these all buying and selling orders will be performed by using a website. Few of the famous e-commerce Web sites which provides online shopping are Amazon, Flipkart, AliExpress,etc..

Transportation :

Web apps are used in transportation sector for booking train or bus tickets in public or Private transportation system. We can also book flight tickets by using websites. Some of the Ticket booking websites are IRCTC, APSRTC, REDBUS, MAKEMYTRIP , etc..

For transportation within cities we regularly use cab services for that cab service booking Aslo we can use websites like OLA, GOIBIBO, UBER, etc..

Education :

In education sector we use websites very frequently for doubts clarifications and for learning Resources. Now a days all the teaching is being done through online only, for that teaching also schools Are using online teaching websites like ZOOM, GOOGLE MEET, MICROSOFT TEAM, etc..

For preparing competetive exams and self learning there few websites like KHAN ACADAMY, BYJUS, W3schools,etc..

Social Media :

Social Media are different web sites that are used for interacting with others , for sharing Of information ,images or videos etc.. over internet. Most used and famous websites around internet are social media sites,few of them are YOUTUBE, FACEBOOK, INSTAGRAM, TWITTER, LINKEDIN, WHATSAPP, etc..

Daily almost every internet user will visit youtube for entertainment or educational purpose, and also Uses FB,INSTAGRAM to interact with friends, WhatsApp for communication with family and relatives and like This web apps are part of our life.

II.Approach

Web Frameworks:

A web framework or web application framework is a software framework that is designed to support the development of web applications including web services, web resources, and web APIs. Web frameworks provide a standard way to build and deploy web applications on the World Wide Web.

Web frameworks are playing a major role in the creation of today's most compelling web applications, because they automate many of the tedious tasks, allowing developers to instead focus on providing users with creative and powerful features.

❏ **Database** – Today nearly all web development frameworks are database driven. They provide support to multiple databases like MySQL, SQL ++, Oracle, and others. Every dynamic application facilitates the end-user to add, delete, and maintain records.

❏ **Rest APIs** -   REST is an acronym for Representational State Transfer   Sharing data between two or more systems has always been a fundamental requirement of software development. A REST API is a way for two computer systems to communicate over HTTP in a similar way to web browsers and servers. Similar to REST, you may encounter CORBA, SOAP, or XML-RPC e.t.c which usually establish strict messaging rules.

❏ **User Management** – One of the most prominent features of frameworks is user management i.e. it supports user logins with users being assigned roles and limitations placed on their access.

❏ **URL Mapping** – This feature allows the framework to interpret a URL with ease and simplification for the user. URL mapping simply means URL simplification.

HTTP communication:

A web server provides support for HTTP (H yper t ext T ransfer P rotocol). As its name implies, HTTP specifies how to transfer hypertext (i.e., linked web documents) between two computers.
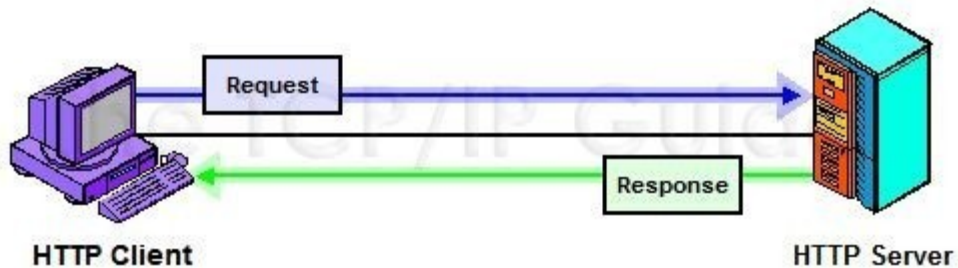

Fig - HTTP Communication

A Protocol is a set of rules for communication between two computers. HTTP is a textual, stateless protocol. HTTP provides clear rules for how a client and server communicate. Only   clients can make HTTP requests, and then only to   servers .   Servers can only   respond   to a   cent   's HTTP request.

- When requesting a file via HTTP, clients must provide the file's URL.
- The web server   must answer   every HTTP request, at least with an error message.

Dynamic Content:

"Dynamic" means that the server processes the content or even generates it on the fly from a database. This solution provides more flexibility, but the technical stack becomes more difficult to handle, making it dramatically more complex to build the website.

HTML, CSS, & JavaScript:

An overview:

HTML is short for Hypertext Markup Language.   HTML is   used to create electronic documents (called pages) that are displayed on the World Wide Web. Each page contains a series of connections to other pages called hyperlinks.

HTML provides the   basic structure of sites, which is enhanced and modified by other technologies like CSS and JavaScript.

CSS is the language for describing the presentation of Web pages, including colors, layout, and fonts. It allows one to adapt the presentation to different types of devices, such as large screens, small screens, or printers.

CSS is used to control   presentation, formatting, and layout .

JavaScript is a client scripting language which is used for creating web pages. It is a standalone language developed in Netscape. It is used when a webpage is to be made dynamic and add special effects on pages like rollover, roll out and many types of graphics.

NodeJs

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 is primarily used for non-blocking, event-driven servers, due to its single-threaded nature. It's used for traditional web sites and back-end API services, but was designed with real-time, push-based architectures in mind.

- Advantages of using Node

   ○ **Secure:** When you are doing it in nodejs, it is ensured that developers don't commit any mistakes related to security. Some of the common mistakes include SQL injection, cross-site request forgery, clickjacking and cross-site scripting.

   ○ **Fast:** This has been designed in a way to help the developers make an application as fast as possible.

   ○ **Built-in Admin:** The nodejs team was quite thoughtful when they created the framework, and they kept user and client satisfaction in mind. It's quite unreasonable to create your own admin interface at the backend just to be able to manage your data with basic CRUD operations.

   ○ **Maintainable :** nodejs code is written using design principles and patterns that encourage the creation of maintainable and reusable code. In particular, it makes use of the Don't Repeat Yourself (DRY) principle so there is no unnecessary

ReactJs

React is a free and open-source front-end JavaScript library for building user interfaces based on UI components. It is maintained by Meta and a community of individual developers and companies.
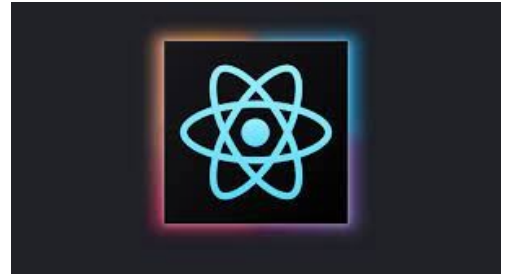
React. js is an open-source JavaScript library that is used for building user interfaces specifically for single-page applications. It's used for handling the view layer for web and mobile apps. React also allows us to create reusable UI components.

- Advantages of using ReactJs

  - **Easy to Learn and Use :** ReactJS is much easier to learn and use. It comes with a good supply of documentation, tutorials, and training resources. Any developer who comes from a JavaScript background can easily understand and start creating web apps using React in a few days.

  - **Reusable Components :** A ReactJS web application is made up of multiple components, and each component has its own logic and controls. These components are responsible for outputting a small, reusable piece of HTML code which can be reused wherever you need them. The reusable code helps to make your apps easier to develop and maintain.

  - **Known to be SEO Friendly :** Traditional JavaScript frameworks have an issue in dealing with SEO. The search engines generally having trouble in reading JavaScript-heavy applications. Many web developers have often complained about this problem. ReactJS overcomes this problem that helps developers to be easily navigated on various search engines.

ExpressJs

Express.js, or simply Express, is a back end web
application framework for Node.js, released as free
and open-source software under the MIT License. It is
designed for building web applications and APIs. It has
 been called the de facto standard server

● Advantages of using ExpressJs

1) **Makes Node.js web application development fast and easy.**
2) **Easy to configure and customize.**
3) **Allows you to define routes of your application based on HTTP methods and URLs.**
4) **Includes various middleware modules which you can use to perform additional tasks on**
5) **request and response.**
6) **Easy to integrate with different template engines like Jade, Vash, EJS etc.**
7) **Allows you to define an error handling middleware.**
8) **Easy to serve static files and resources of your application.**
9) **Allows you to create REST API server.**
10) **Easy to connect with databases such as MongoDB, Redis, MySQL**

MongoDB

MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas. MongoDB is developed by MongoDB Inc.

● Advantages of using ExpressJs

1) **Makes Node.js web application development fast and easy.**
2) **Easy to configure and customize.**
3) **Allows you to define routes of your application based on HTTP methods and URLs.**
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BLOCK DIAGRAM

Questions

users

RKV Forums

Answers

Jobs
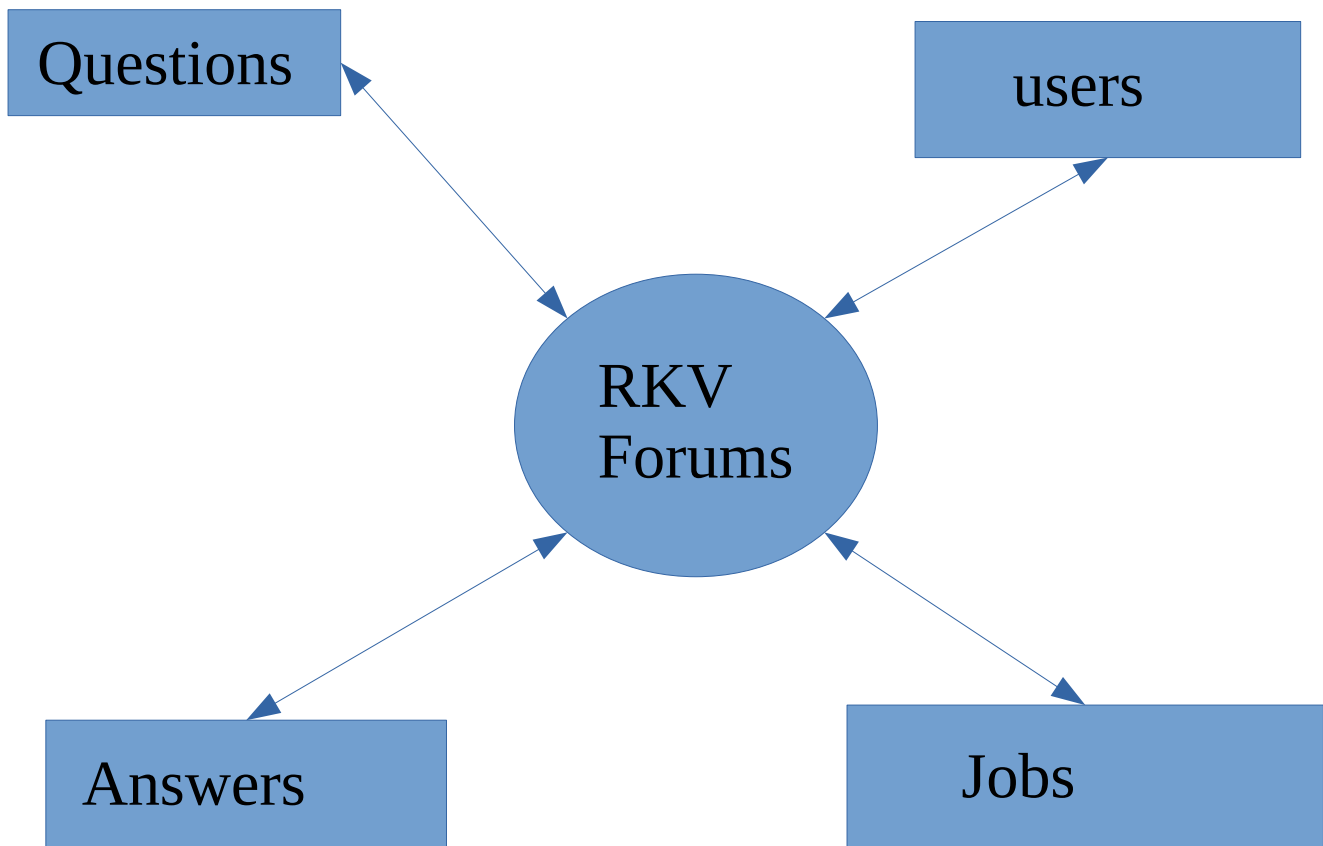
III.Technologies and Softwares

Technologies :

- HTML5
- CSS3
- Java Script
- ExpressJs
- ReactJs
- nodejs
- mongodb

Softwares :

- Visual Studio Code
- Postman

IV.Features of the project

I.Easily clarifies doubts :

By using 'RKV Forums' web application one can easily ask their doubt and can clarify them
Without consulting a faculty. All we need to do is to post our doubts and someone can answer them.
We can also answer a question if we know the answer.

Apart from questions we also have an option, where you can find career oprtunities like jobs
Internships and many.

II.Save Time and Efforts :

Generally if we students have any doubts regarding subjects, all we do is consult a faculty to
Clarify that doubt. What if there is no faculty available or we are out of reach of a faculty?, we have
Wait till one is available.

By using 'RKV Forums' we can easily post a question, some one who knows or has faced the same
Problem can share their experience on how they solved their problem.

III. Easy job searching :

RKV Forums also have an amazing feature of careers or jobs section where user can find
Some really good career opertunities posted by their fellow students or faculty.

X. step-by-step-implementation

1) Collected data required for developing the project

Firstly we started collecting the data required for the implementation of the project like what features
We are going to implement and what sources we may need. We googled on internet about how and forums
Website be like and we got some inspirations from there.

2) Started designing and implementing the UI designs for the projects

Giving user a good experience with design and website flow is a crucial task. we implemented a
good and simple UI designs for the sake of users. We have designed UI prototype using FIGMA tool.

3) Preparing database

We have used mongodb as a database along with nodejs. We have setup our database at mongodb.com
Which given us 500mb of free db storage. Mongodb is easy learn and manage, and also efficient.

4) Construcred backend
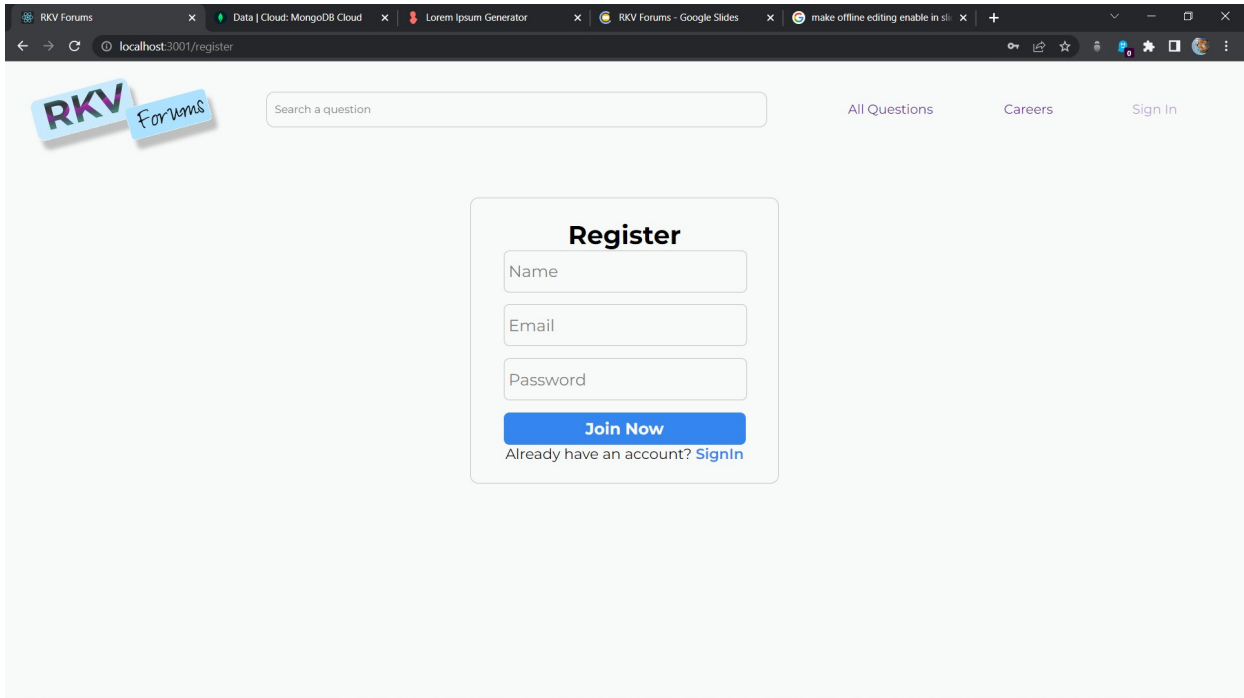
Finally we prepared backend server which is very important for every dynamic web application.we
built it with nodeJS, a full stack web framework used for developing dynamic websites.

5) Tested each and every features

For every project the testing is very important.we tetsed each and evry features of the web
application to check whether it is working properly or not before bringing it to the customers.

RKV Forums

Project screenshots

User register page

Page | 20
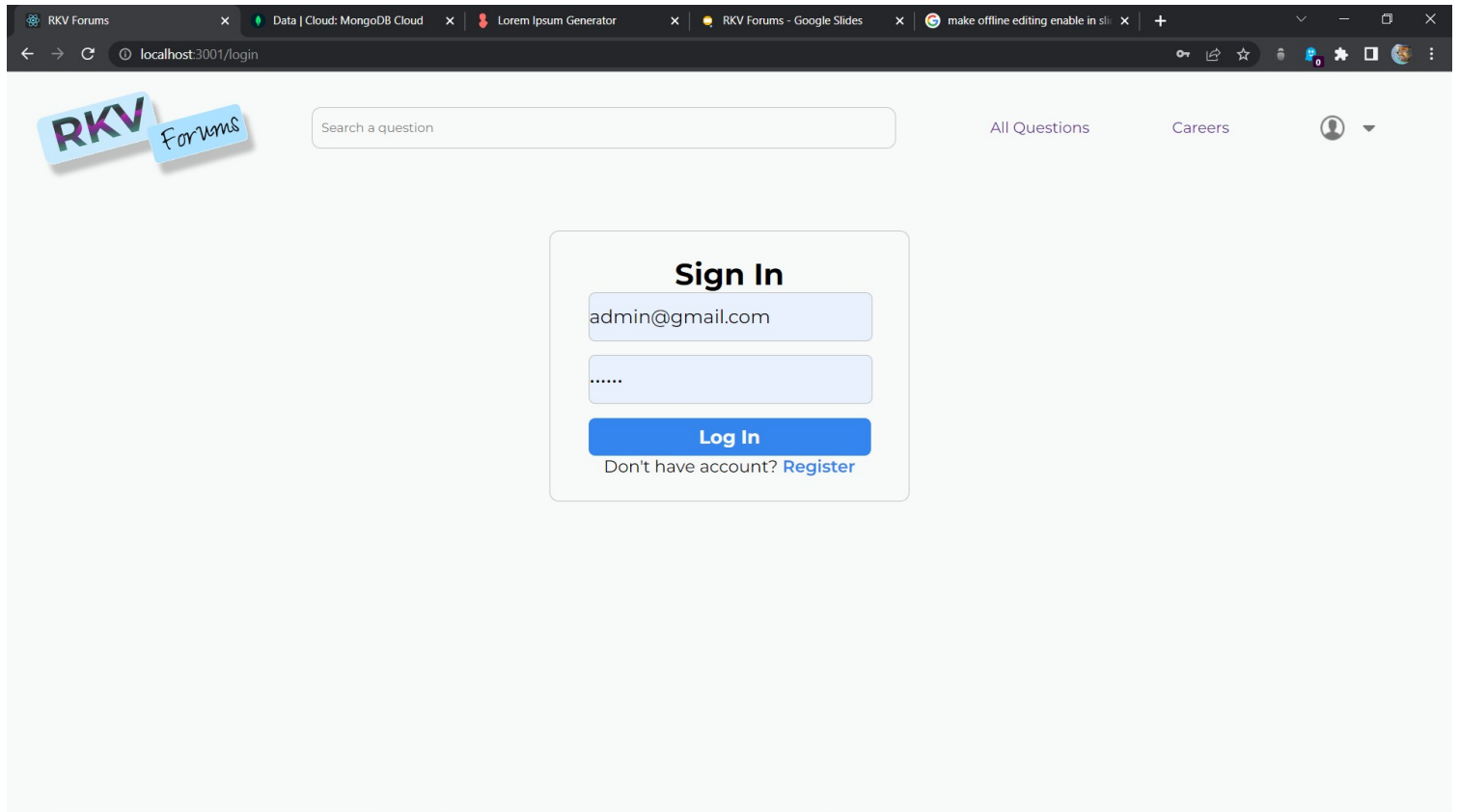
RKV Forums

Project screenshots

User login page

RKV Forums

Project screenshots

All questions page

RKV Forums
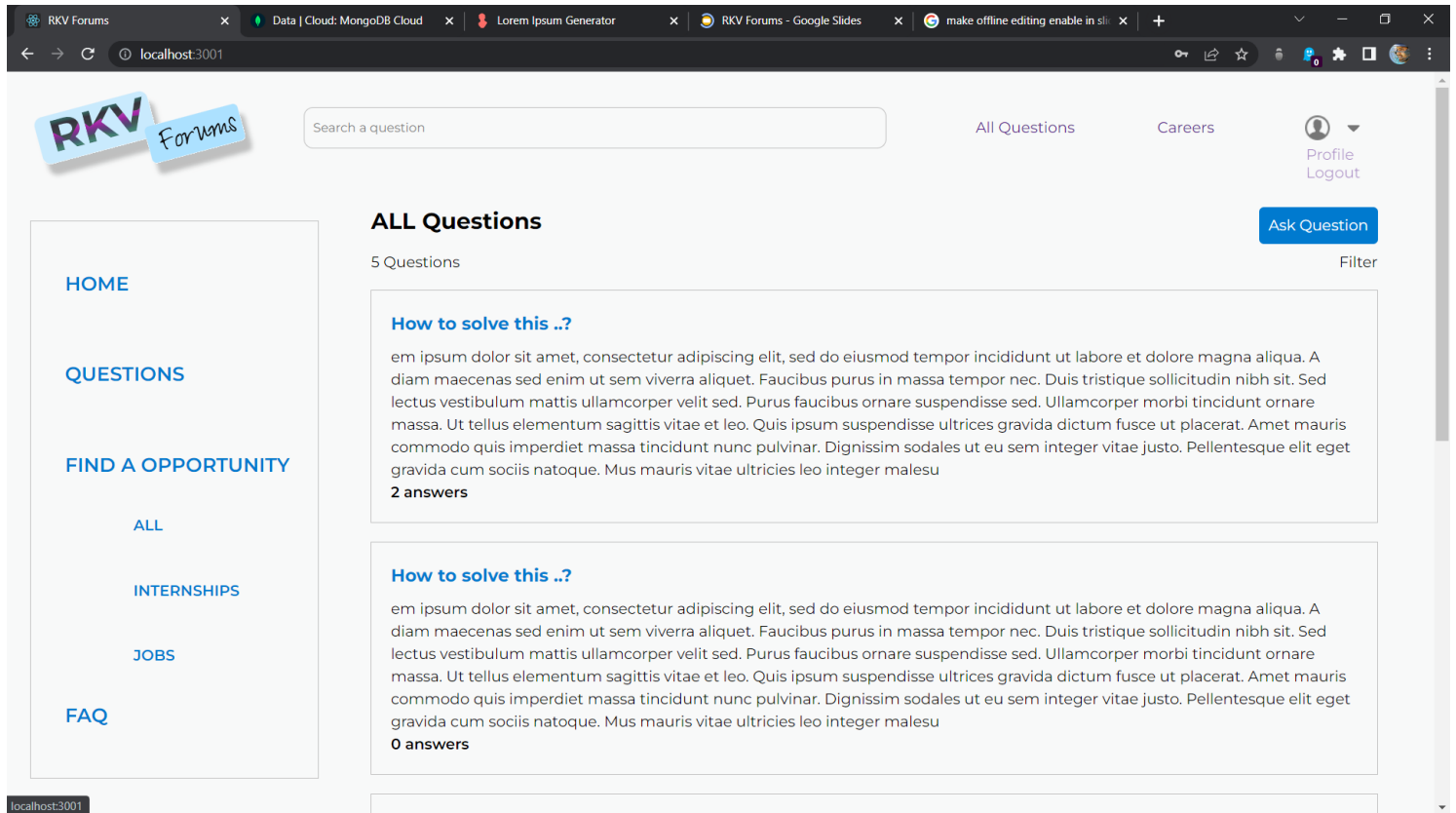
Project screenshots

View question page

RKV Forums

Project screenshots

Add question page

RKV Forums
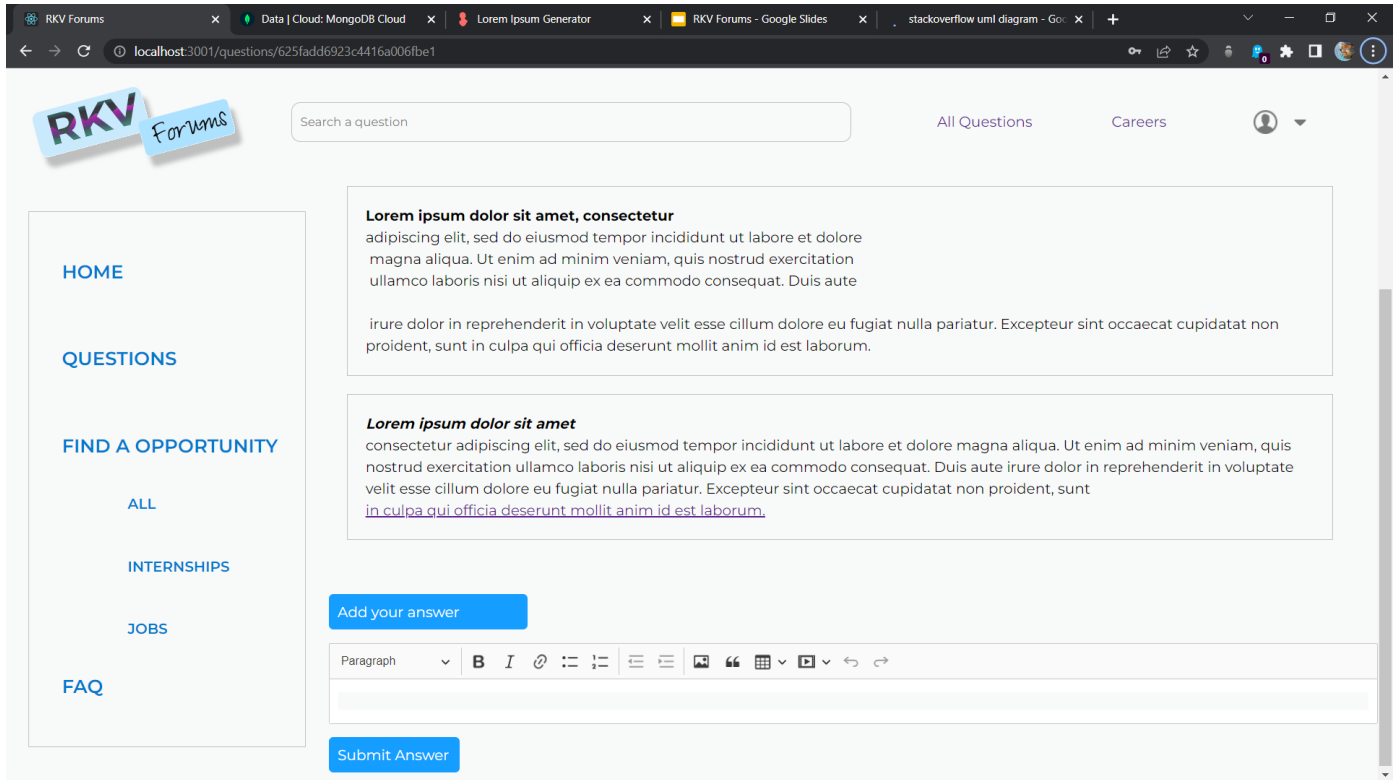
Project screenshots

All Jobs page

RKV Forums
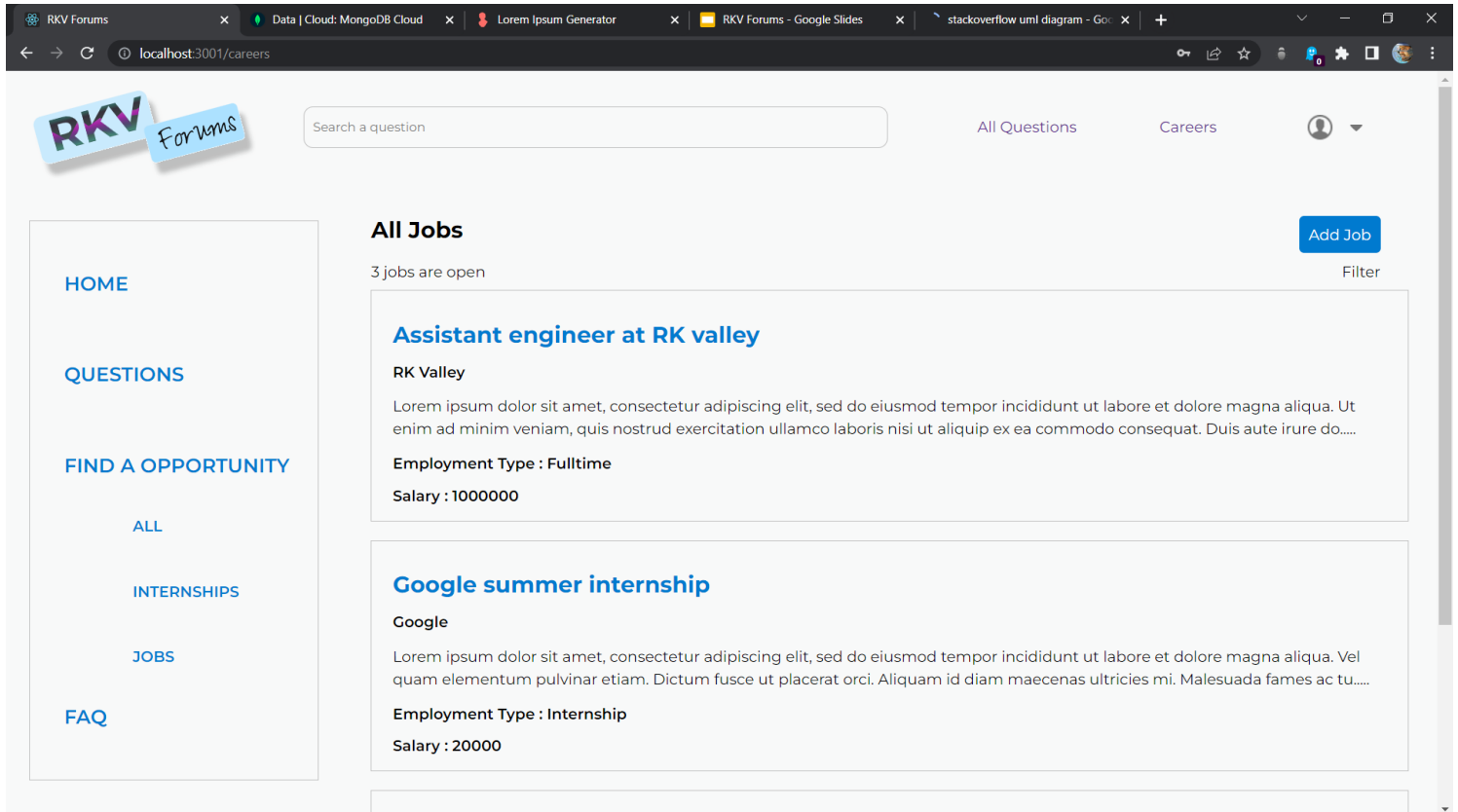
Project screenshots

View job page

RKV Forums
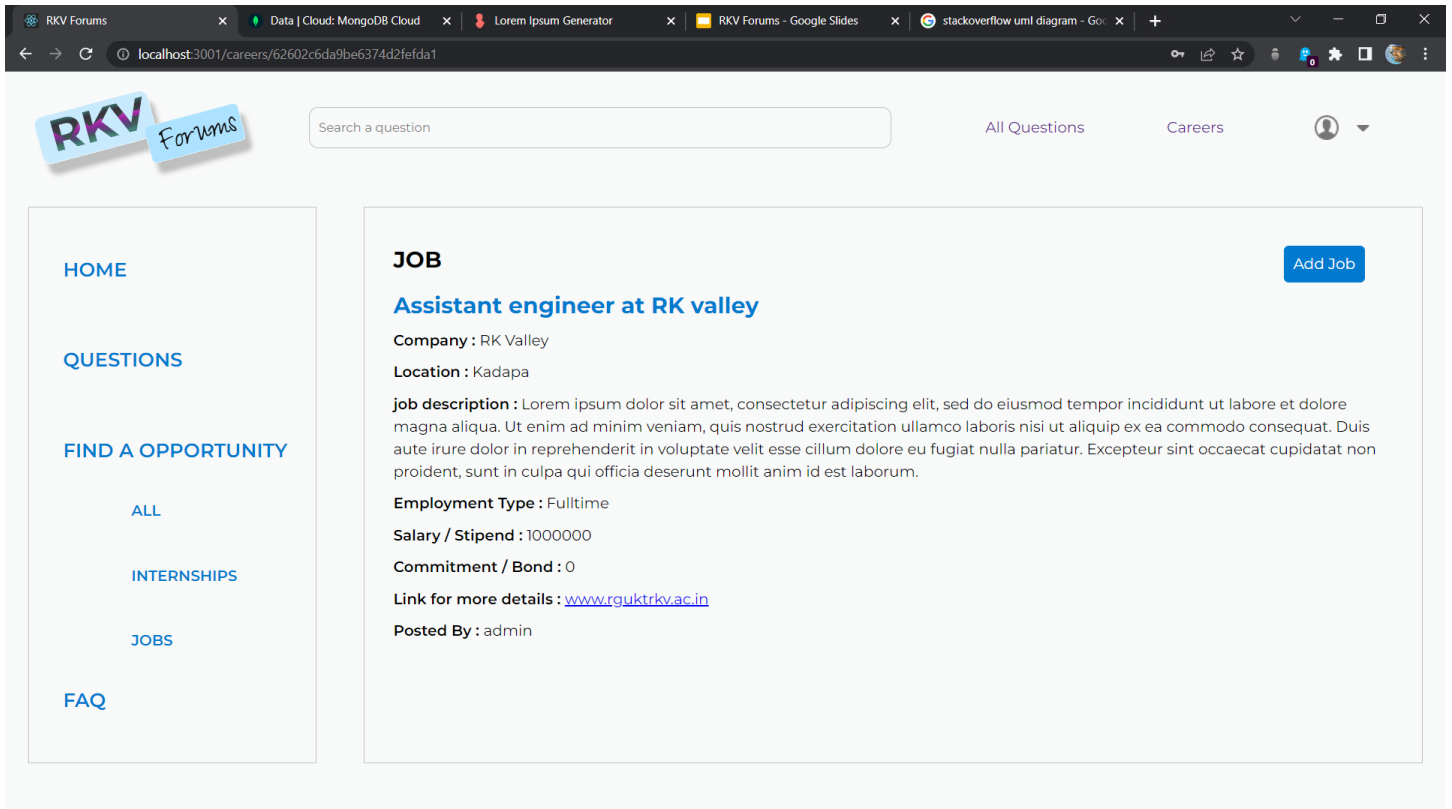
Project screenshots

Add job page

VIII.Existing system and it's challenges

EXISTING SYSTEM :

Currently if we students have doubts first we ask our nearby friends,if they dont know then we may move
To ask a faculty or a professor to clarify our doubts. If they are available at the moment, we are ok our
Problem will be solved. What if they are out of reach to us or not available at the moment. All we do is
Wait untill a concerned faculty is available, so that we can clarify our doubt. What if some students have
Fear to meet a faculty or feel embarassed ask some small doubts. His doubts may remain as it is.
To overcome all this problems we propose RKV Forums as a solution.

CHALLENGES :

1. NOT availability of faculty.

2. We may out of reach of friends and professors who might solve our doubts.

3. Fear of meeting a faculty.

4. Finding some really trusted career opertunities

VIII.proposed system and it's advantages

PROPOSED SYSTEM :

User initially has to sign up/login to rkv forums. Then can he find large number of questions previously
Posted and answered by other people. User can find his doubt from previously asked questions or he
Can post a question explaining his problem, so that others can answer.
User can also find a careers tab where a user can all available job opportunities so that he can get to know
All oportunities he has.

ADVANTAGES :

1. Large community of students answer our doubts

2. Intuitive & user-friendly

3.   Easy job searching

4. Highly secure

X.Future scope of the project

In the future we are willing to implement real time communication option where a user can
Directly contact to the person who has answered a question, so that user can talk more about
A problem he has been facing.
We are also planning to develop a feature which detects fake or spam job opertunities, so that
No one can be unsatisfied with our web application.

XI.References

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express

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ReactJs

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Get Started with first web app

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