

BACHLOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

By

NAME OF THE STUDENT

RIZWAN AHMAD

REGISTRATION NO: 12000740

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SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

LOVELY PROFESSIONAL UNIVERSITY

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ABSTRACT

This project is a web based shopping system for an existing shop. The project objective is to deliver the online shopping into web page platform.

This project is an attempt to provide the advantages of online shopping to customers of a real shop. It helps buying the products in the shop anywhere through internet by using an website. Thus the customer will get the service of online shopping and home delivery from his favorite shop. This system can be implemented to any shop in the locality or to multinational branded shops having retail outlet chains.

If shops are providing an online portal where their customers can enjoy easy shopping from anywhere, the shops won't be losing any more customers to the trending online shops such as Flipcart or Ebay. Since the website is available in the Smartphone it is easily accessible and always available.

ACKNOWLEDGEMENT

I take this occasion to thank God, almighty for blessing us with his grace and taking our endeavor to a successful culmination. I extend my sincere and heartfelt thanks to our esteemed guide, Dr. Senthil Kumar j , for providing me with the right guidance and advice at the crucial junctures and for showing me the right way. I extend my sincere thanks to our respected **Head of the division** , for allowing us to use the facilities available. I would like to thank the other faculty members also, at this occasion. Last but not the least, I would like to thank my friends and family for the support and encouragement they have given me during the course of our work.

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INTRODUCTION

This project is a web based shopping system for an existing shop. The project objective is to deliver the online shopping website. Online shopping is the process whereby consumers directly buy goods or services from a seller in real-time, without an intermediary service, over the Internet. It is a form of electronic commerce. This project is an attempt to provide the advantages of online shopping to customers. It helps buying the products anywhere through internet by using this website. Thus the customer will get the service of online shopping and home delivery.

1.1 PROJECT OBJECTIVE:

The objective of the project is to make a website to purchase Readymade Clothes items through this website. In order to build such a website complete web support need to be provided. A complete and efficient web page which can provide the online shopping experience is the basic objective of the project. The website can be implemented in the form of web view.

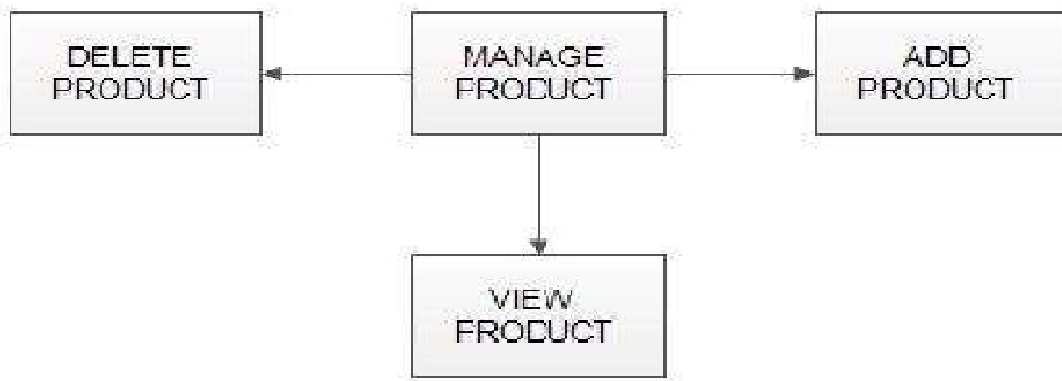
1.2 PROJECT OVER VIEW:

The central concept of the website is to allow the customer to shop virtually using the Internet and allow customers to buy the electronic items of their desire from the website. The information pertaining to the products are stores on an RDBMS at the server side (store).

The Server process the customers and the items are shipped to the address submitted by them. The application was designed into two modules is for the customers who wish to buy the products. The website which is deployed at the customer database, the details of the items are brought forward from the database for the customer view based on the selection through the menu and the database of all the products are updated at the end of each transaction. Data entry into the website can be done through various screens designed for various levels of users. Once the authorized personnel feed the relevant data into the system, several reports could be generated as per the security.

1.3 STUDY OF THE SYSTEM

MANAGE PRODUCTS:



➤ Add Products

The shopping cart project contains different kind of products. The products can be classified into different categories by name. Admin can add new products into the existing system with all its details including an image.

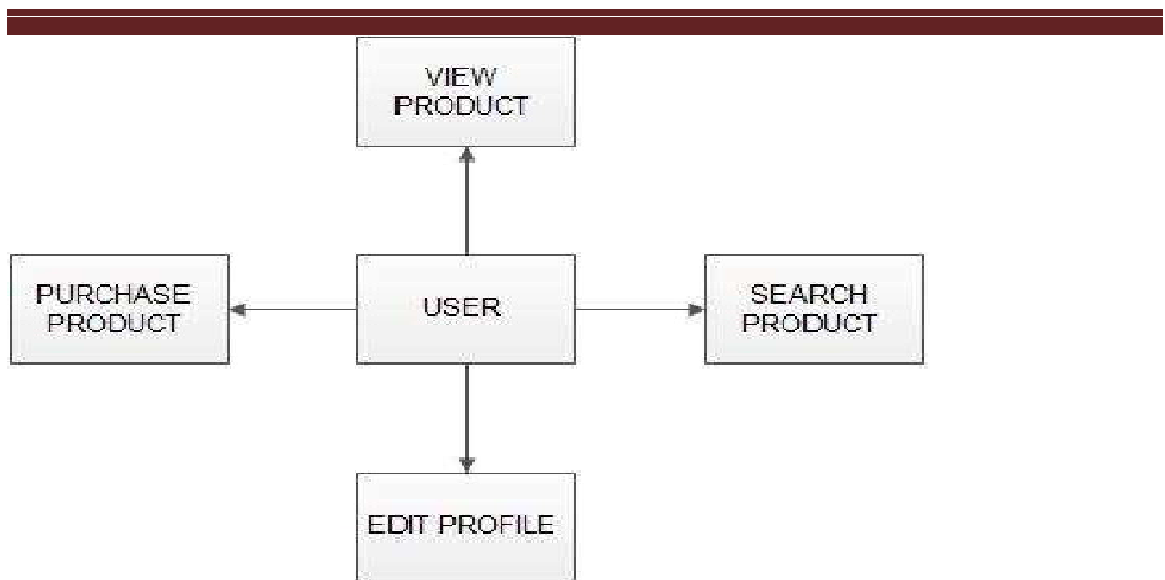
➤ Delete Products

Administrator can delete the products based on the stock of that particular product.

➤ Search products

Admin will have a list view of all the existing products. He/she can also search for a particular product by name.

1.3.1 USERS:



➤ Registration:

A new user will have to register in the website by providing essential details in order to view the products in the system. The admin must accept a new user by unblocking him.

➤ Login :

This feature used by the user to login into system. A user must login with his user name and password to the system after registration. If they are invalid, the user not allowed to enter the system.

➤ View Products:

User can view the list of products based on their names after successful login. A detailed description of a particular product with product name, products details, product image, price can be viewed by users.

➤ Search Product:

Users can search for a particular product in the list by name.

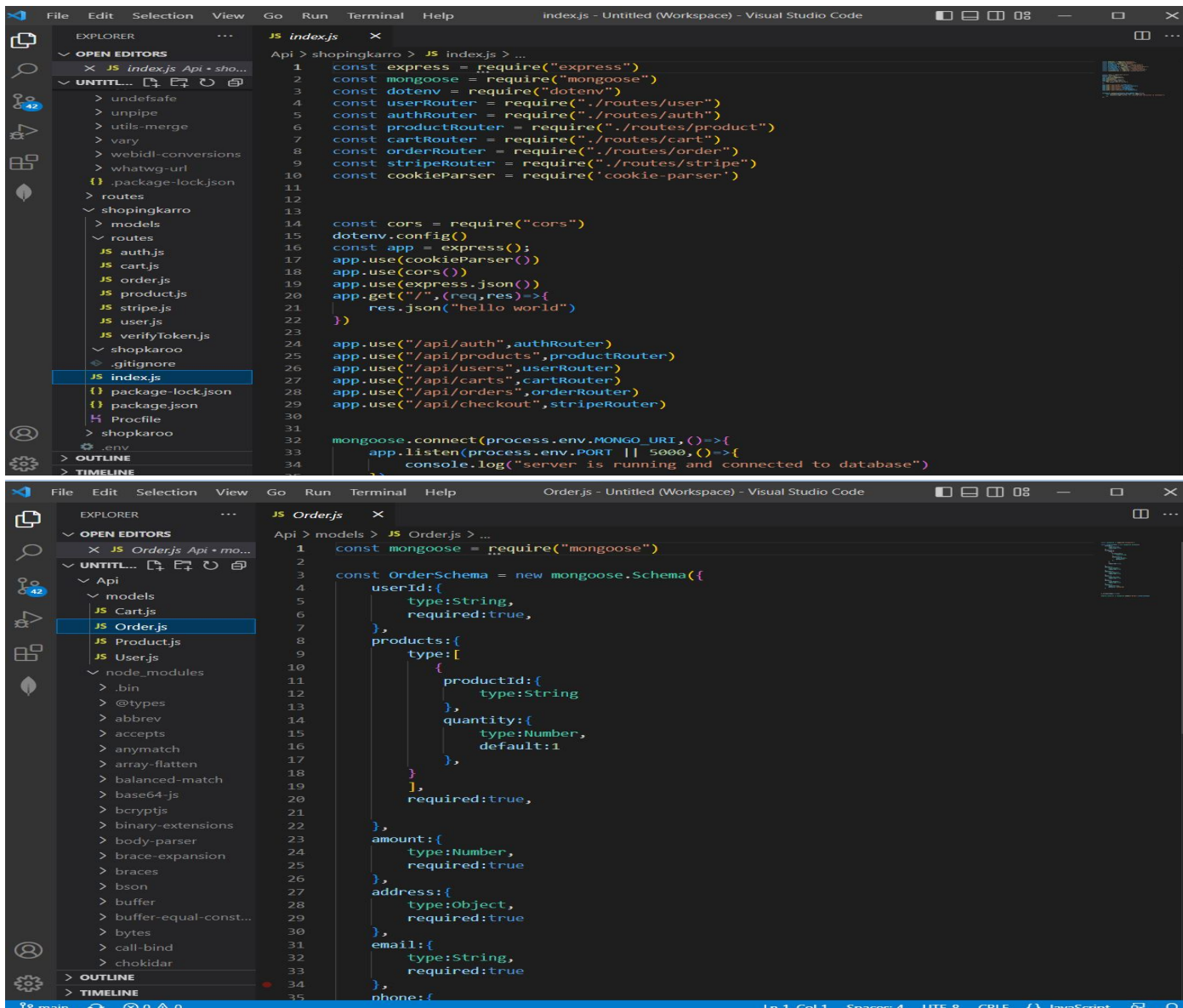
➤ Add to cart:

The user can add the desired product into his cart by clicking add to cart option on the product. He can view his cart by clicking on the cart button. All products added by cart can be viewed in the cart. User can edit an item from the cart by clicking edit.

2. SYSTEM DESIGN:

2.1 INPUT AND OUTPUT DESIGN:

INPUT DESIGN:

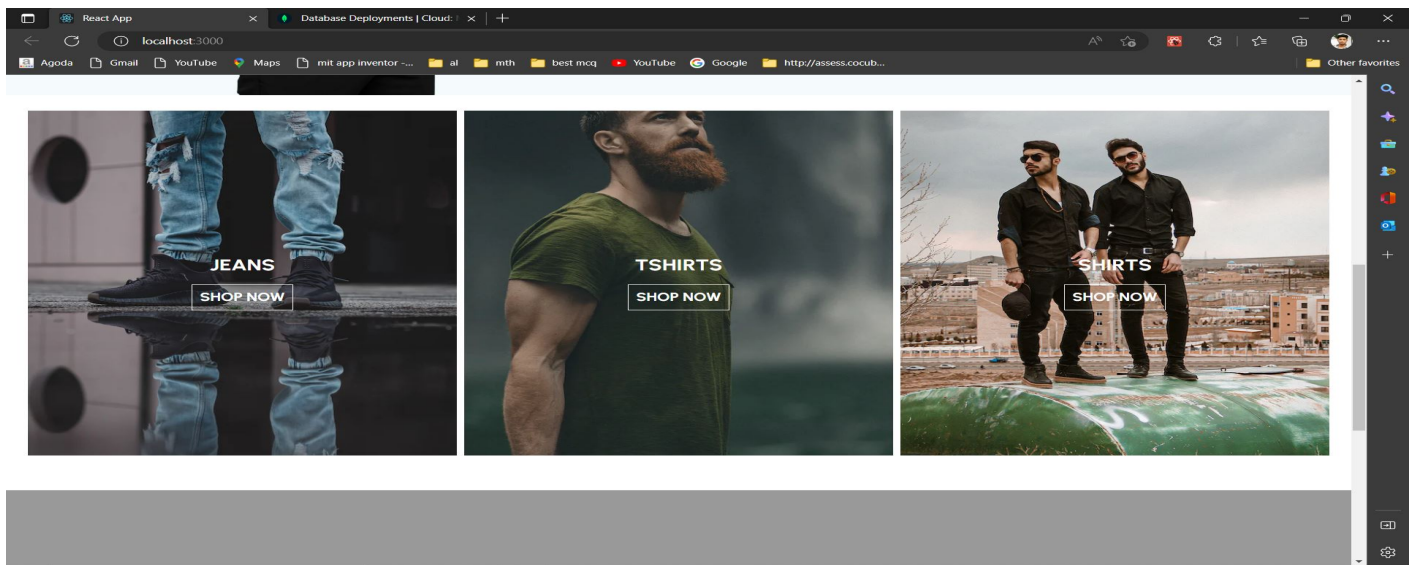


The image displays two screenshots of the Visual Studio Code editor, showing the source code for a web application. The top screenshot shows the 'index.js' file, which is the main entry point of the application. It includes imports for 'express', 'mongoose', 'dotenv', and various route handlers. The code sets up an Express application, configures middleware like 'cookieParser' and 'cors', and defines routes for authentication, products, users, carts, orders, and checkout. It also connects to a MongoDB database and starts the server on port 5000. The bottom screenshot shows the 'Order.js' file, which defines a Mongoose schema for the 'Order' model. The schema includes fields for 'userId', 'products' (an array of objects with 'productId' and 'quantity'), 'amount', 'address', 'email', and 'phone'.

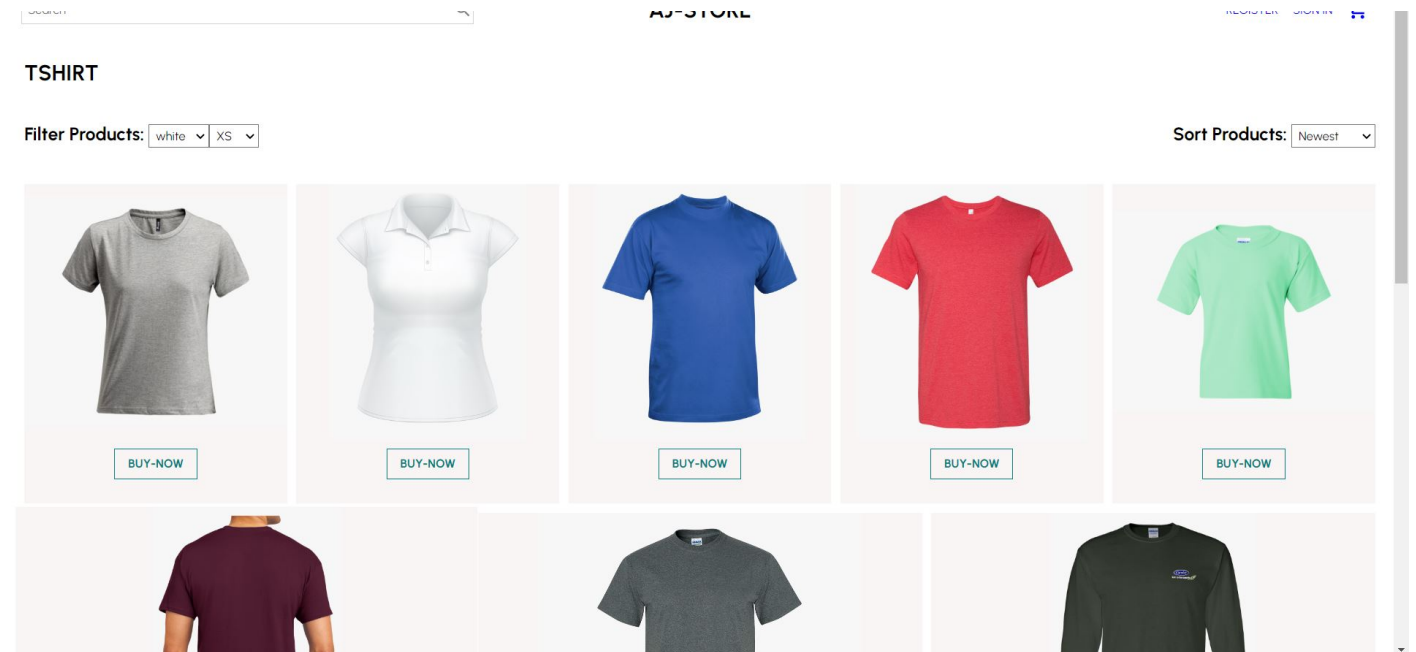
```
1 const express = require("express")
2 const mongoose = require("mongoose")
3 const dotenv = require("dotenv")
4 const userRouter = require("../routes/user")
5 const authRouter = require("../routes/auth")
6 const productRouter = require("../routes/product")
7 const cartRouter = require("../routes/cart")
8 const orderRouter = require("../routes/order")
9 const stripeRouter = require("../routes/stripe")
10 const cookieParser = require('cookie-parser')
11
12
13
14 const cors = require("cors")
15 dotenv.config()
16 const app = express()
17 app.use(cookieParser())
18 app.use(cors())
19 app.use(express.json())
20 app.get("/", (req, res) => {
21   res.json("hello world")
22 })
23
24 app.use("/api/auth", authRouter)
25 app.use("/api/products", productRouter)
26 app.use("/api/users", userRouter)
27 app.use("/api/carts", cartRouter)
28 app.use("/api/orders", orderRouter)
29 app.use("/api/checkout", stripeRouter)
30
31
32 mongoose.connect(process.env.MONGO_URI, () => {
33   app.listen(process.env.PORT || 5000, () => {
34     console.log("server is running and connected to database")
35   })
36 })
```

```
1 const mongoose = require("mongoose")
2
3 const OrderSchema = new mongoose.Schema({
4   userId: {
5     type: String,
6     required: true,
7   },
8   products: {
9     type: [
10       {
11         productId: {
12           type: String
13         },
14         quantity: {
15           type: Number,
16           default: 1
17         }
18       }
19     ],
20     required: true,
21   },
22   amount: {
23     type: Number,
24     required: true
25   },
26   address: {
27     type: Object,
28     required: true
29   },
30   email: {
31     type: String,
32     required: true
33   },
34   phone: {
```


2.1.2 OUTPUT DESIGN:



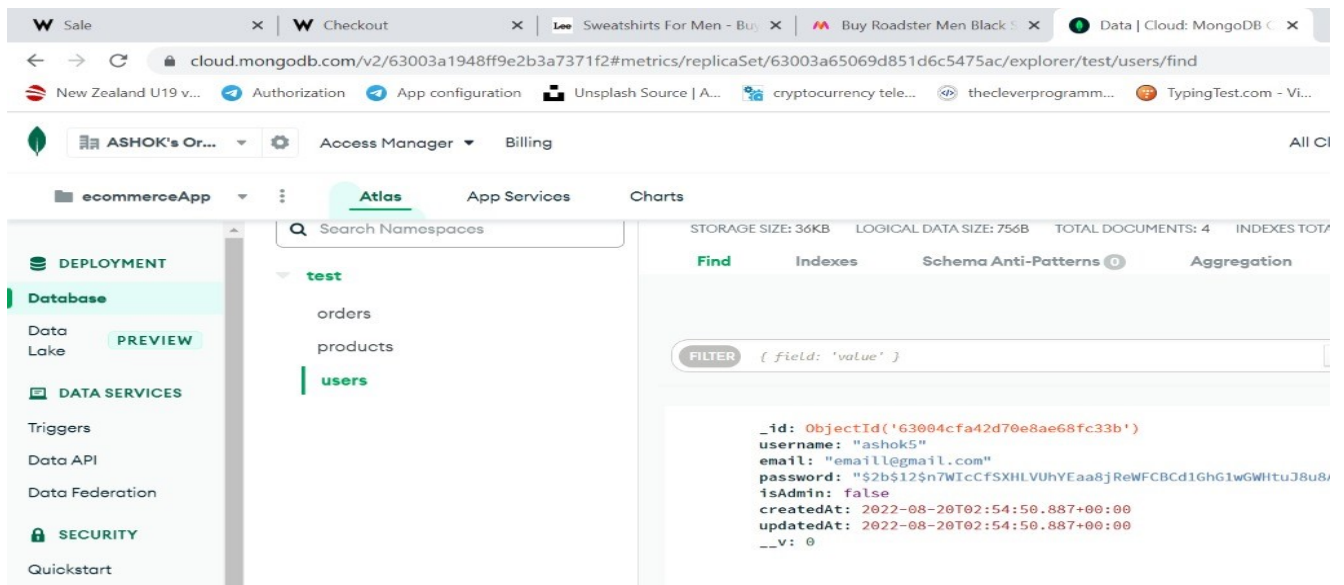
5



2.2 DATABASE

DATABASE DESIGN:

Databases are the storehouses of data used in the software systems. The data is stored in tables inside the database. Several tables are created for the manipulation of the data for the system



3.3.1 FRONT END:

HTML, CSS, JAVA SCRIPT, ReactJs&Redux are utilized to implement the frontend. HTML, CSS and embedded JSP actions and commands. Using JS, one can collect input from users through web page.

HTML (Hyper Text Markup Language)

HTML is a syntax used to format a text document on the web.

CSS (Cascading Style Sheets)

CSS is a style sheet language used for describing the look and formatting of a document written in a markup language.

Java Script

JS is a dynamic computer programming language. It is most commonly used as part of web browsers, whose implementations allow client side scripts to interact with the user,

control the browser, communicate asynchronously, and alter the document content that is displayed.

Java Script is used to create pop up windows displaying different alerts in the system like “User registered successfully”, “Product added to cart” etc.

ReactJs

React Redux is the official **UI bindings** for react Application. It is kept up-to-date with any API changes to ensure that your React components behave as expected.

Express

It's a layer built on the top of the Node js that that helps manage servers and routes. Express is a node js web application framework that provides broad features for building web and mobile applications. It is used to build a single page, multipage, and hybrid web application.

NodeJs

It is used for **server-side programming, and primarily deployed for non-blocking, event-driven servers, such as traditional web sites and back-end API services**, but was originally designed with real-time, push-based architectures in mind.

3.3.2 BACK END:

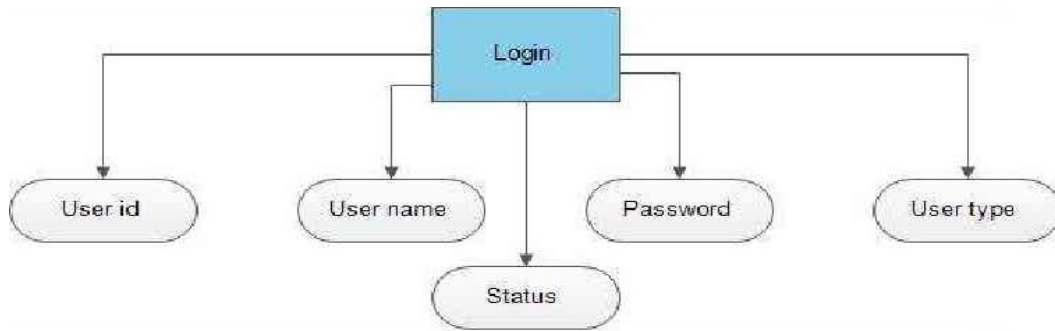
The back end is implemented using MongoDB which is used to design the databases.

MongoDb

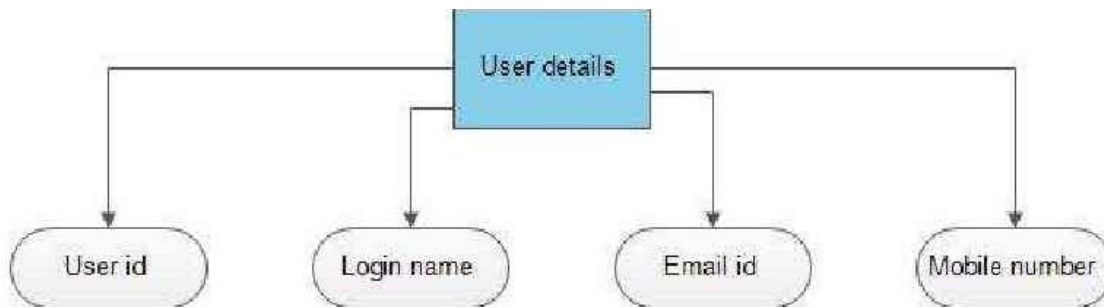
MongoDB Atlas is a multi-cloud developer data platform. At its core is our fully managed cloud database for modern applications. Atlas is the best way to run MongoDB, the leading non-relational database. MongoDB's document model is the fastest way to innovate because documents map directly to the objects in your code.

3.5 E-R DIAGRAMS

➤ LOGIN



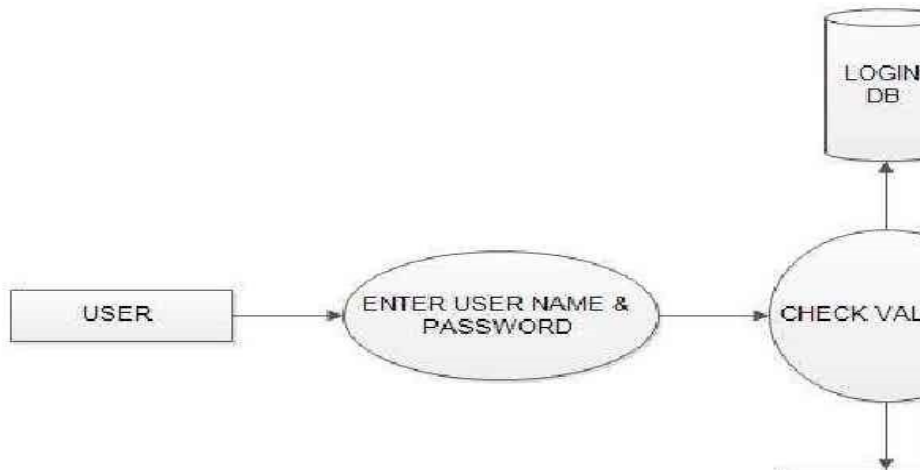
➤ USER DETAILS



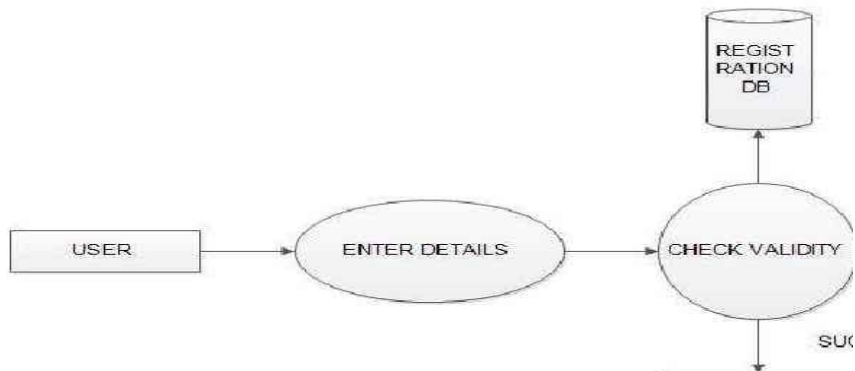
3.6 DATA FLOW DIAGRAM

A Data Flow Diagram (DFD) is a structured analysis and design tool that can be used for flowcharting. A DFD is a network that describes the flow of data and the processes that change or transform the data throughout a system. This network is constructed by using a set of symbols that do not imply any physical implementation. It has the purpose of clarifying system requirements and identifying major transformations. So it is the starting point of the design phase that functionally decomposes the requirements specifications down to the lowest level of detail. DFD can be considered to an abstraction of the logic of an information-oriented or a process-oriented system flow-chart. For these reasons DFD's are Often referred to as logical data flow diagrams.

➤ LOGIN DFD



➤ REGISTRATION DFD



CONCLUSION

The project entitled **E commerce shopping website** was completed successfully. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a website and for purchasing items from a website. This project helped us in gaining valuable information and practical knowledge on several topics like designing web pages using html & css, usage of responsive templates, designing of website, and management of database using MongoDB. The entire system is secured. Also the project helped us understanding about the development phases of a project and software development life cycle. We learned how to test different features of a project. This project has given us great satisfaction in having designed an website. There is a scope for further development in our project to a great extend.

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