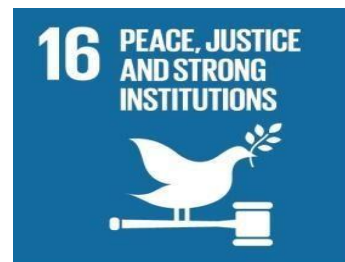
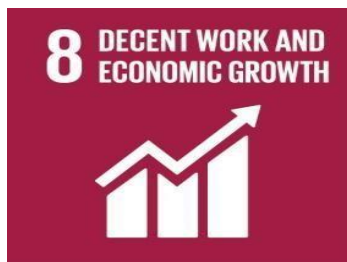


# Integrated Project - II (CS205)



## PROJECT REPORT On

## “Pizza” (Ecommerce website) BATCH-2021



### Project Mentor

Mr. Himanshu Sharma

### Student Name & ID

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## Problem Statement:

Problem Statement: Performance, Scalability, User Friendly

I am creating a simple pizza-ordering platform where users can easily order their favorite pizzas. The platform is designed to be user-friendly and intuitive, ensuring ease of use for everyone. It features various functionalities to handle operations smoothly. Pizza is a beloved choice for many, so on this pizza app, users have many options to choose from according to their taste preferences and budget. We aim to offer a wide selection of pizzas with varying prices and flavors to cater to diverse preferences.

Here's a breakdown of the common problems we encounter and some suggested solutions:

1. Performance Optimization
2. Scalability
3. User Friendly

Need Statement: Here's the solution that helps us to overcome the problems we face.

### 1. Technology Stack Selection:

- Choose MongoDB for flexible and scalable database management.
- Implement ejs for creating dynamic and interactive user interfaces.
- Use Node.js for server-side logic and handling asynchronous operations.

### 2. Responsive and Intuitive UI/UX Design:

- Design a responsive and mobile-friendly user interface for seamless browsing on various devices.

### 3. Product Management and Inventory Control:

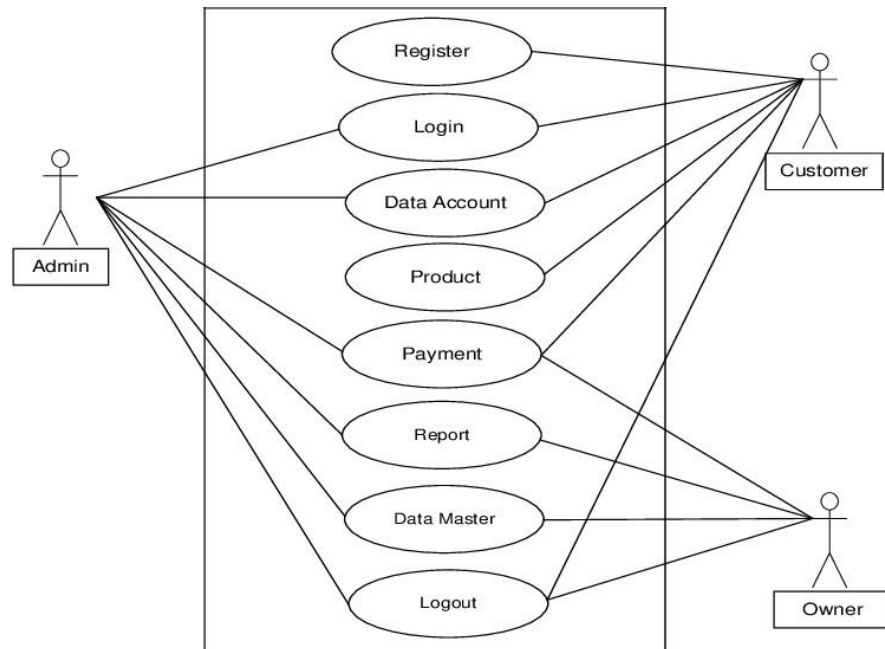
- Develop an admin dashboard for managing product listings, categories, and inventory levels.
- Implement features for adding/editing products, updating stock levels, and tracking sales.
- Utilize MongoDB for efficient storage and retrieval of product data.

### 4. Order Management and Fulfilment:

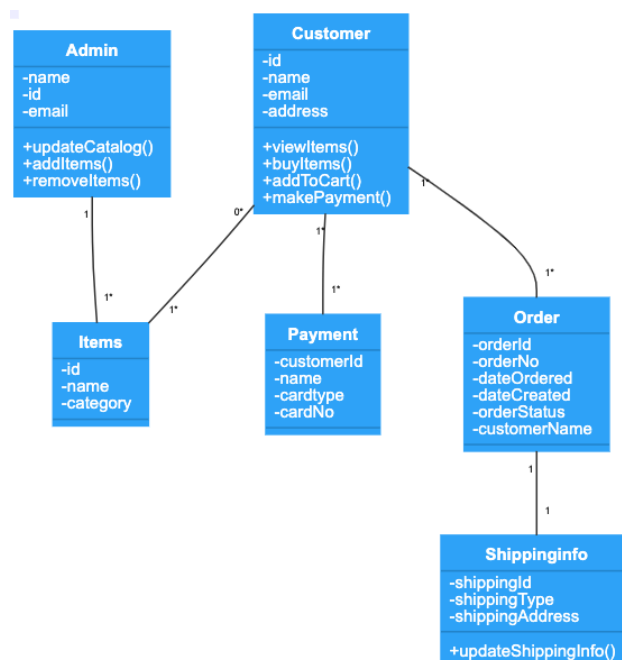
- Implement order tracking functionality for users to monitor the status of their orders.
- Develop an order management system to handle order processing.

## UML Diagram

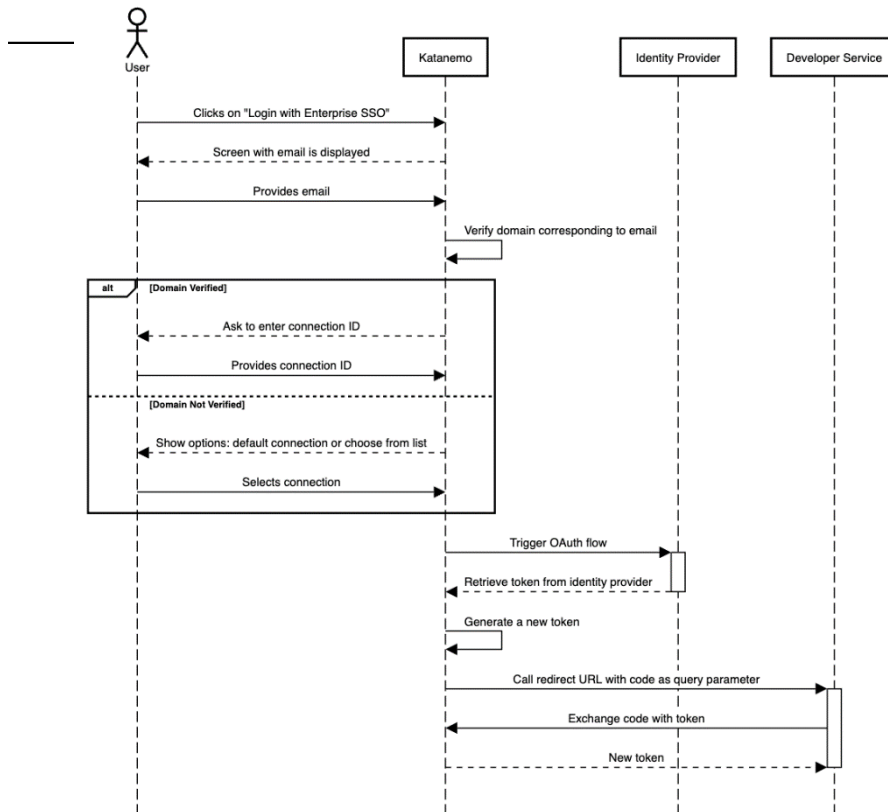
### 1. Use case diagram:



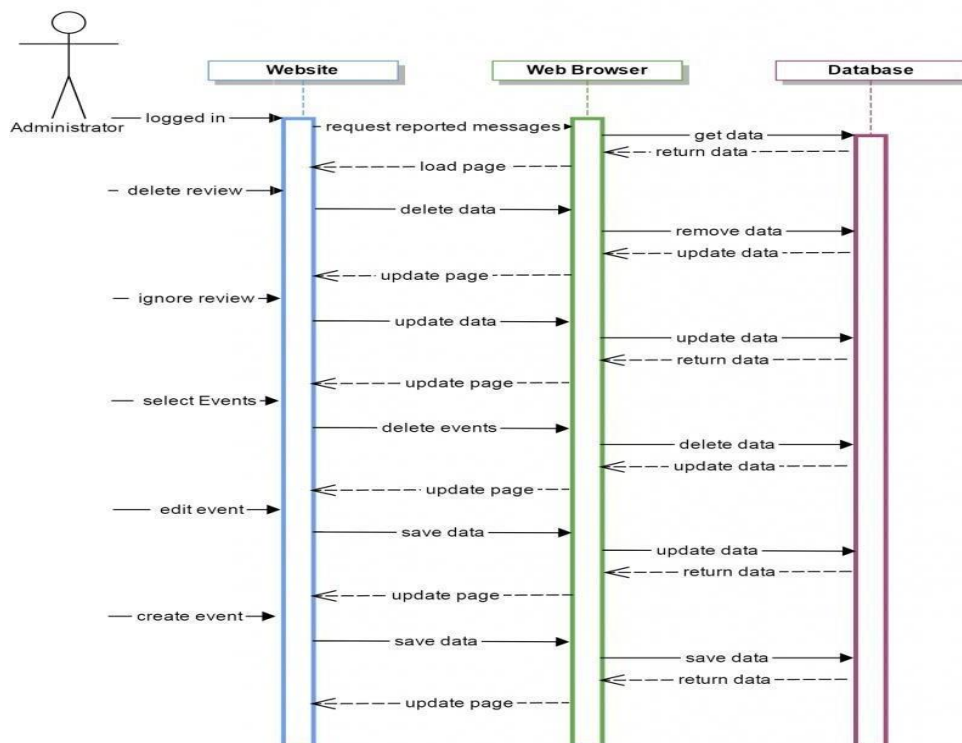
### 2. Class Diagram:



## Sequence Diagram:



## 2.Admin



## OBJECTIVE-FUNCTION-CONSTRAINT IDENTIFICATION

Characteristics	Objective	Constraints	Functions	Requirements
User Interface and Navigation	Enhance shopping experience with intuitive interface	Choosing appropriate framework	User-friendly UI, Intuitive Navigation	Make it user friendly
Security	Protect user data and transactions	Authentication, authorization	Robust Security Measures	Security: Basic authentication, Safe from attacks
Order M management	Manage orders effectively	Separate individually	Order Tracking, Status Updates	Track all orders
User management	Manage all user efficiently	Separate individually	Track all users	Track all users
Product management	Manage all products	Differentiate each products	Add ,delete update	Track all products

## HARDWARE AND SOFTWARE REQUIREMENTS

Category	Requirements
<b>Hardware</b>	<p><b>- Server:</b> High-performance server with sufficient processing power and memory for handling website traffic and database operations efficiently.</p> <p><b>-End-user Devices:</b> Compatible devices such as desktops, laptops, tablets, and smart phones for accessing the e-commerce platform.</p> <p><b>- Storage:</b> Adequate storage space for hosting website files, images, and database backups.</p>
<b>Software</b>	<p><b>-Operating System:</b> Server operating system such as Linux or Windows for hosting the web application and database.</p> <p><b>-Database Management System (DBMS):</b> MongoDB (mongodb atlas) for storing and managing product data, user information, and other related data.</p> <p><b>- Programming Languages/Frameworks:</b></p> <ul style="list-style-type: none"> <li>• ReactJS for frontend development</li> <li>• Node.js for backend development</li> <li>• Express.js for building APIs.</li> </ul> <p><b>-Development Tools:</b></p> <ol style="list-style-type: none"> <li>1. VS code</li> <li>2. Postman</li> </ol>

## **Working functionality of E-commerce project**

### **1. User Registration and Authentication:**

Users can register for an account by providing necessary details like email and password.

Upon registration, users receive a verification email for account activation.

Authenticated users can log in securely to access their accounts and perform actions like browsing products and making purchases

### **2. Product Browsing and Searching:**

Product listings display essential information such as name, price, description, and image

### **3. Cart Management:**

Users can modify the quantity of items in the cart, remove products, or clear the entire cart.

The cart dynamically updates to reflect any changes made by the user.

### **4. Checkout Process:**

Users proceed to the checkout process to complete their purchases.

They provide shipping and billing information, select a payment method

### **5. Admin Panel:**

Administrators have access to a dedicated admin panel for managing products, categories, and orders.

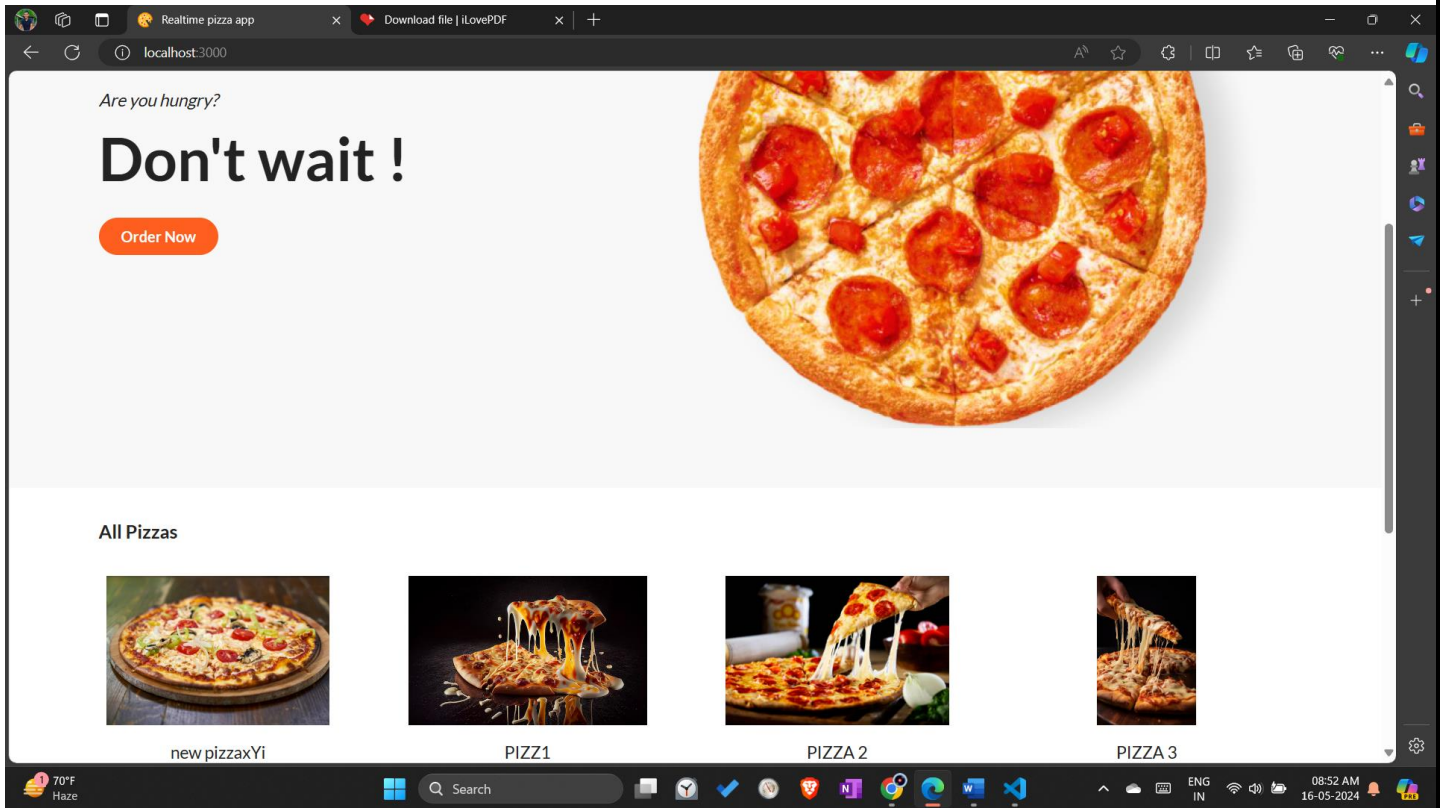
They can add, edit, or delete products, update inventory levels, and monitor sales.

### **6. Order Management:**

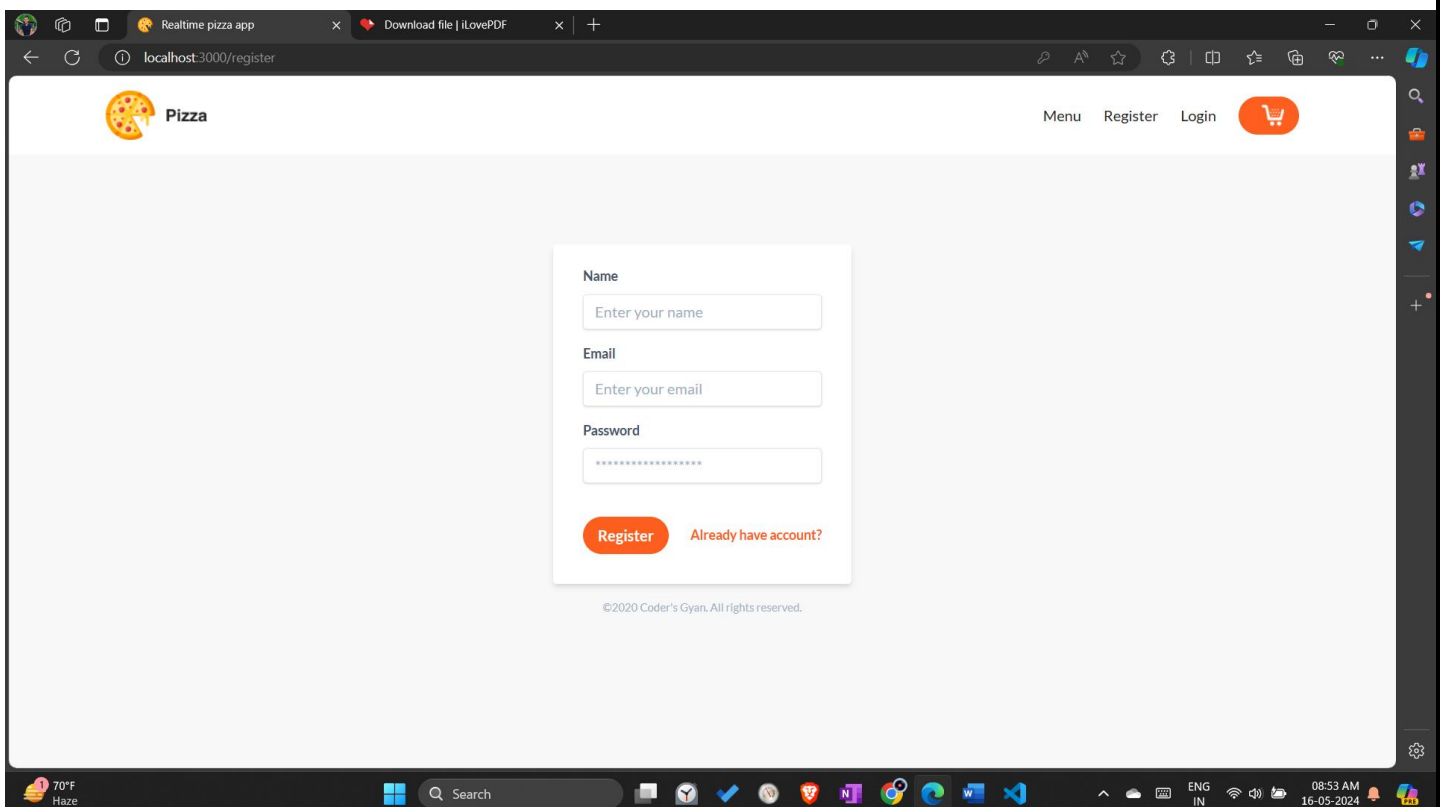
Administrators can view and manage orders, including order status, shipping details, and customer information.

## Project Overview

### 1.Home Page :



### 2.Login/Sign up





### 3. User Dashboard:

All Pizzas

Pizza Name	Difficulty	Price	Action
new pizzaxYi	EASY	₹239	+ Add
PIZZ1	MEDIUM	₹345	+ Add
PIZZA 2	EASY	₹123	+ Add
PIZZA 3	LARGE	₹456	+ Add
PIZZA 4	MEDIUM	₹234	+ Add
PIZZA 4	MEDIUM	₹234	+ Add
PIZZA 5	LARGE	₹324	+ Add

### 4. CartPage :

Add product

All Products

Name	Image	Price	Size	Edit	Delete
new pizzaxYi		\$239	easy	Edit	Delete
PIZZ1		\$345	medium	Edit	Delete
PIZZA 2		\$123	easy	Edit	Delete
PIZZA 3		\$456	large	Edit	Delete
PIZZA 4		\$234	medium	Edit	Delete
PIZZA 4		\$234	medium	Edit	Delete
PIZZA 5		\$324	large	Edit	Delete

## CODE FOR EXECUTION OF PROJECT

### 1. ejs Frontend

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      background-color: #f0f0f0;
      margin: 0;
      padding: 0;
    }

    h1 {
      text-align: center;
      margin-top: 20px;
    }

    table {
      width: 90%;
      margin: 20px auto;
      border-collapse: collapse;
      background-color: #fff;
      box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
    }

    th, td {
      border: 1px solid #ddd;
      padding: 12px;
      text-align: left;
    }

    th {
      background-color: #f2f2f2;
    }

    img {
      width: 50%;
      height: 50%;
    }
  </style>
</head>
<body>
  <h1>Document</h1>
  <table>
    <tr>
      <th>Document</th>
    </tr>
  </table>
  <img alt="Document icon" data-bbox="450 450 550 550"/>
</body>
</html>
```

## 2.Nodejs (Backend)

```
import express, { urlencoded } from "express";
```

```
require('dotenv').config()

const express = require('express')

const app = express()

const ejs = require('ejs')

const path = require('path')

const expressLayout = require('express-ejs-
layouts')

const PORT = process.env.PORT || 3000

const mongoose = require('mongoose')

const session = require('express-session')

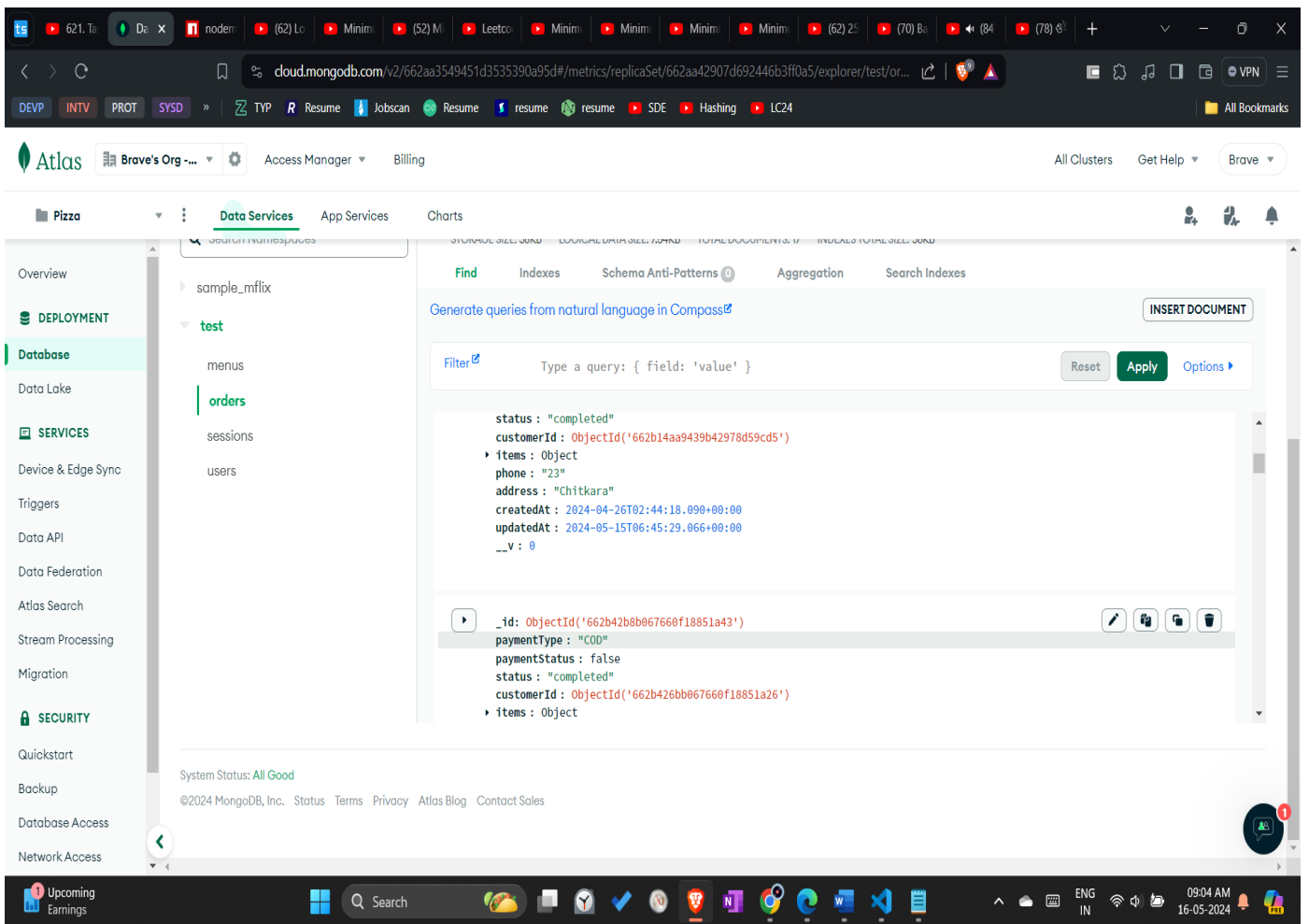
const flash = require('express-flash')

const MongoDBStore = require('connect-
mongo')(session)

const passport = require('passport')

const Emitter = require('events')// Database
connection

mongoose.connect(process.env.MONGO_CON
NECTION_URL, {
```



#### 4. Depolying in GitHub

<https://github.com/shantanu2002git>

## **Scope:**

- 1. Augmented Reality (AR) Integration:** Implement AR technology to allow customers to visualize products in their real-world environment before making a purchase, enhancing the online shopping experience.
- 2. Artificial Intelligence (AI) for Personalization:** Utilize AI algorithms to analyse customer behaviour and preferences, providing personalized product recommendations and tailored shopping experiences.
- 3. Social Commerce Integration:** Integrate social media platforms to facilitate social sharing, user-generated content, and direct purchases from social channels, tapping into the growing trend of social commerce.

## **Conclusion**

**Our e-commerce project is all about making online shopping simple, reliable, and innovative. We've focused on creating a platform that's easy to use for both customers and businesses. Throughout our journey, user experience, security, and scalability have been our guiding principles, ensuring that every aspect of our platform meets the needs of our users**

**Looking ahead, we're dedicated to staying updated with the latest trends and technologies in ecommerce. By listening to feedback and continuously improving, we're excited to see how our platform will continue to grow and make a difference in the world of online retail. With a strong foundation and a commitment to innovation, we're ready to embrace the future of digital commerce and deliver even greater value to our users.**

## **Deployment**

- 1. Source Code(git-hub) : <https://github.com/shantanu2002git>**

## **References**

- 1. <https://geeksforgeeks.org>**
- 2. [Youtube.com](https://www.youtube.com)**
- 3. [https://w3school.com](https://www.w3school.com)**