



## E- Commerce Website

Database Modeling and creation of API



## Botique Website

- Welcome to our Botique where style meets sophistication  
Step into a world of fashion that reflects a Unique personality and embraces Timeless elegance

NM ID	Name	Batch
au421320104001	A.AFREENA	4
au421320104009	V.DURGALAKSHMI	4
au421320104004	A.ASHIBABRGAM	4
au421320104037	S.SARULATHA	4
au421320104041	B.SHARMILA	4

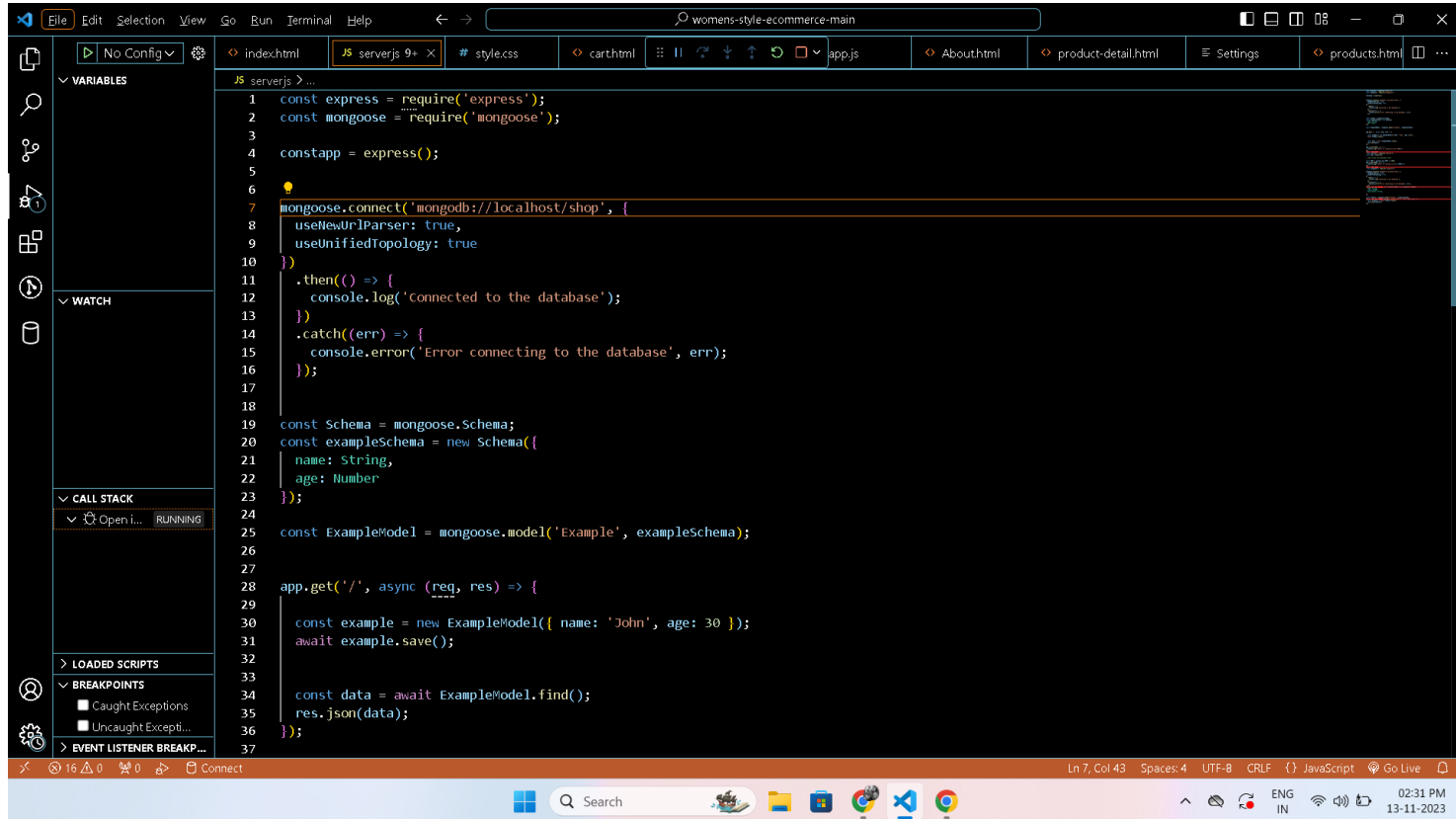


## Integrate the API to the frontend to ensure dynamic feature

- Choose a Database System
- Set Up the Database
- Backend Integration
- Connect Backend to the Database
- Test and Debug
- Implement Security Measures
- Optimize and Scale
- Document and Maintain

# Execution and Connecting to Database

## VS Code execution



The screenshot shows the Visual Studio Code editor interface. The main editor window displays a JavaScript file named `server.js` with the following code:

```
1 const express = require('express');
2 const mongoose = require('mongoose');
3
4 const app = express();
5
6
7 mongoose.connect('mongodb://localhost/shop', {
8   useNewUrlParser: true,
9   useUnifiedTopology: true
10 })
11 .then(() => {
12   console.log('connected to the database');
13 })
14 .catch(err => {
15   console.error('Error connecting to the database', err);
16 });
17
18
19 const Schema = mongoose.Schema;
20 const exampleSchema = new Schema({
21   name: String,
22   age: Number
23 });
24
25 const ExampleModel = mongoose.model('Example', exampleSchema);
26
27
28 app.get('/', async (req, res) => {
29
30   const example = new ExampleModel({ name: 'John', age: 30 });
31   await example.save();
32
33
34   const data = await ExampleModel.find();
35   res.json(data);
36 });
37
```

The left sidebar contains the Explorer, Search, Source Control, and Run and Debug views. The Run and Debug view is active, showing the 'No Config' button and the 'RUNNING' status. The bottom status bar indicates the current line and column (Ln 7, Col 43), the encoding (UTF-8), the line ending (CRLF), the language (JavaScript), and the Go Live button. The system tray at the bottom shows the time (02:31 PM) and date (13-11-2023).

# Inputting the data on the Website


Women's style | ALL PRODUCTS

File | C:/Users/love/Downloads/mans-style-e-commerce-main/womens-style-e-commerce-main/products.html

HomeProductsAboutAccount

WOMEN'SSTYLE


Default Sorting




Crop Tops

★★★★★


₹250



Topplot Tops



Hoodie



Solid T-Shirt

Search

ENG IN

02:54 PM 13-11-2023

## Rendering output of apis to tablecomponents




Women's Style | CART

File | C:/Users/lovei/Downloads/mans-style-ecommerce-main/womens-style-ecommerce-main/cart.html

WOMEN'S

STYLE

[Home](#) [Products](#) [About](#) [Contact](#) [Account](#)

Product	Quantity	Sub-total
 <div><b>Black Printed T-Shirt</b> Price: \$50.00 <a href="#">Remove</a></div>	<input type="text" value="1"/>	₹250
 <div><b>Classy Shoes</b> Price: ₹300 <a href="#">Remove</a></div>	<input type="text" value="1"/>	₹300
 <div><b>Printed Scarf</b> Price: ₹250 <a href="#">Remove</a></div>	<input type="text" value="1"/>	₹250
<hr/>		
Subtotal		₹900
Tax		₹300
Total		₹1200

02:56 PM  
13-11-2023

## Learning Outcome

- Connecting a database in a stock inventory website cultivates a comprehensive set of learning outcomes. Individuals develop crucial skills in database management by grasping the fundamentals of setting up and managing databases such as MySQL Proficiency in Structured Query Language (SQL) is acquired, empowering the execution of critical operations like inserting, updating, querying, and deleting data.
- Learners gain an understanding of data modeling and design, allowing the creation of efficient and normalized database structures tailored for inventory management.
- Connecting backend applications to databases becomes second nature, enabling the implementation of essential Create, Read, Update, and Delete (CRUD) functionalities.
- Emphasis on data security measures, error handling, and optimization techniques fortifies skills in maintaining the integrity, security, and performance of the database.
- Validating and sanitizing user inputs to practical application through hands-on projects, this learning journey equips individuals with practical and theoretical knowledge for proficiently managing and manipulating inventory data within a database system.

## Step-Wise Description

### Step 1: Choose a Database Management System (DBMS)

**Select a DBMS:** Choose a suitable database system such as MySQL, based on the project's requirements and scalability needs.

### Step 2: Set Up the Database

**Install and Configure:** Install the MySQL and configure it on your server or local machine.

**Create the Database:** Using the DBMS tools or command-line interface, create a database specifically for managing inventory data.

### Step 3: Define Database Schema

**Design Database Schema:** Plan and design the structure of the database, including tables for products, orders, users, etc.

### Step 4: Backend Integration

**Choose Backend Technology:** Select a backend technology or framework Node.js for your application.

**Install Database Drivers:** Install necessary database drivers or ORM libraries to connect your chosen backend technology to the database.



## **Step 5: Connect the Backend to the Database**

**Configure Database Connection:** Set up a connection to the database within your backend code, providing the necessary connection details such as host, port, username, password, and database name.

**Create CRUD Operations:** Write code to perform CRUD operations (Create, Read, Update, and Delete) within your backend code, allowing your application to interact with the database.

## **Step 6: Test and Debug**

**Test Database Connectivity:** Ensure that your backend application can connect to the database and perform CRUD operations accurately.

**Handle Errors:** Implement error handling mechanisms for database-related errors, ensuring robustness and data integrity.

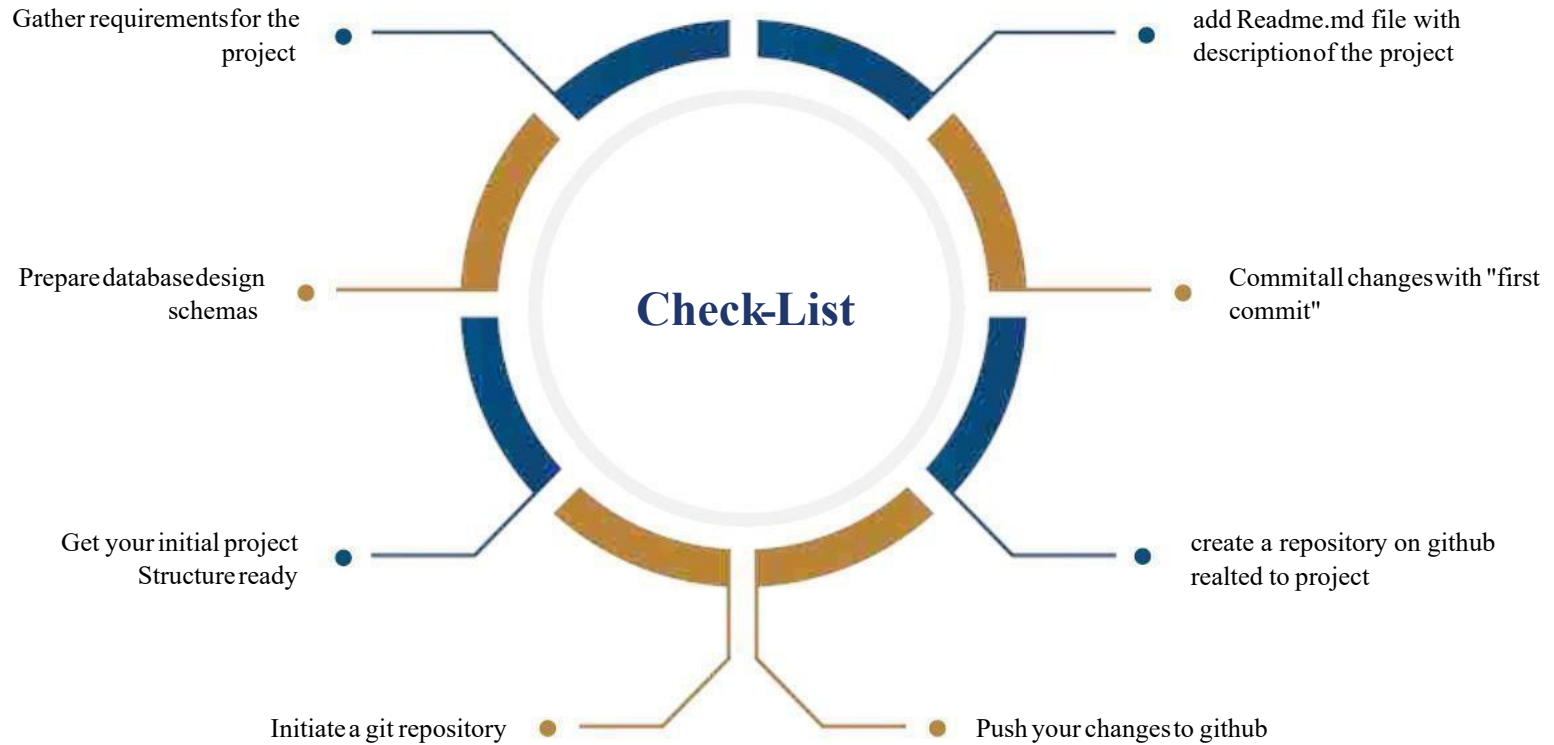
## **Step 7: Implement Security Measures**

**Secure Data Inputs:** Implement data validation and parameterized queries to prevent SQL injection attacks and maintain data security.

## Summary of your task

- An e-commerce website for a boutique offers a digital storefront for a unique and personalized shopping experience.
- With a carefully curated collection of fashion items, including clothing, accessories, and footwear, this online platform allows customers to browse and purchase boutique-quality products from the comfort of their homes. Users can explore a diverse range of items, complete with detailed descriptions and high-quality images, making it easy to find the perfect addition to their wardrobe.
- The website's user-friendly interface includes search and filter options for efficient navigation, secure and convenient checkout procedures, and the ability to create user accounts for tracking orders and receiving personalized recommendations.
- Additionally, social media integration and a blog section keep customers informed about the latest trends and promotions. By prioritizing product quality, customer satisfaction, and a seamless online shopping experience, this e-commerce website for a boutique aims to cater to the discerning fashion enthusiasts looking for style, convenience, and a touch of elegance.

# AssessmentParameter



## *Submission Github*



<https://github.com/Ashibabegam/Naan-mudhalvan.git>

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Thank  
you!

