



ShopEZ Project Report

This report details the development and key aspects of the ShopEZ online shopping platform, from its conceptualization to its proposed architecture.

1. INTRODUCTION

1.1 Project Overview

ShopEZ is an innovative online shopping platform designed to provide a seamless and efficient experience for both customers and sellers. It aims to simplify the online purchasing journey through a user-friendly interface, a comprehensive product catalog, and robust backend management tools. The platform focuses on effortless product discovery, personalized shopping, secure transactions, and efficient order management with insightful analytics.

1.2 Purpose

The purpose of this report is to document the ShopEZ project's objectives, design, implementation considerations, and overall vision. It serves as a comprehensive guide for stakeholders, outlining the problem it solves, the solution proposed, and the technical approach taken.

2. IDEATION PHASE

2.1 Problem Statement

Date: 19 February 2026

Team ID: LTPV 2026TMD S80463

Project Name: ShopEZ:One-Stop Shop for Online Purchases

Maximum Marks: 2 Marks

Customer Problem Statement – Shopez Edition

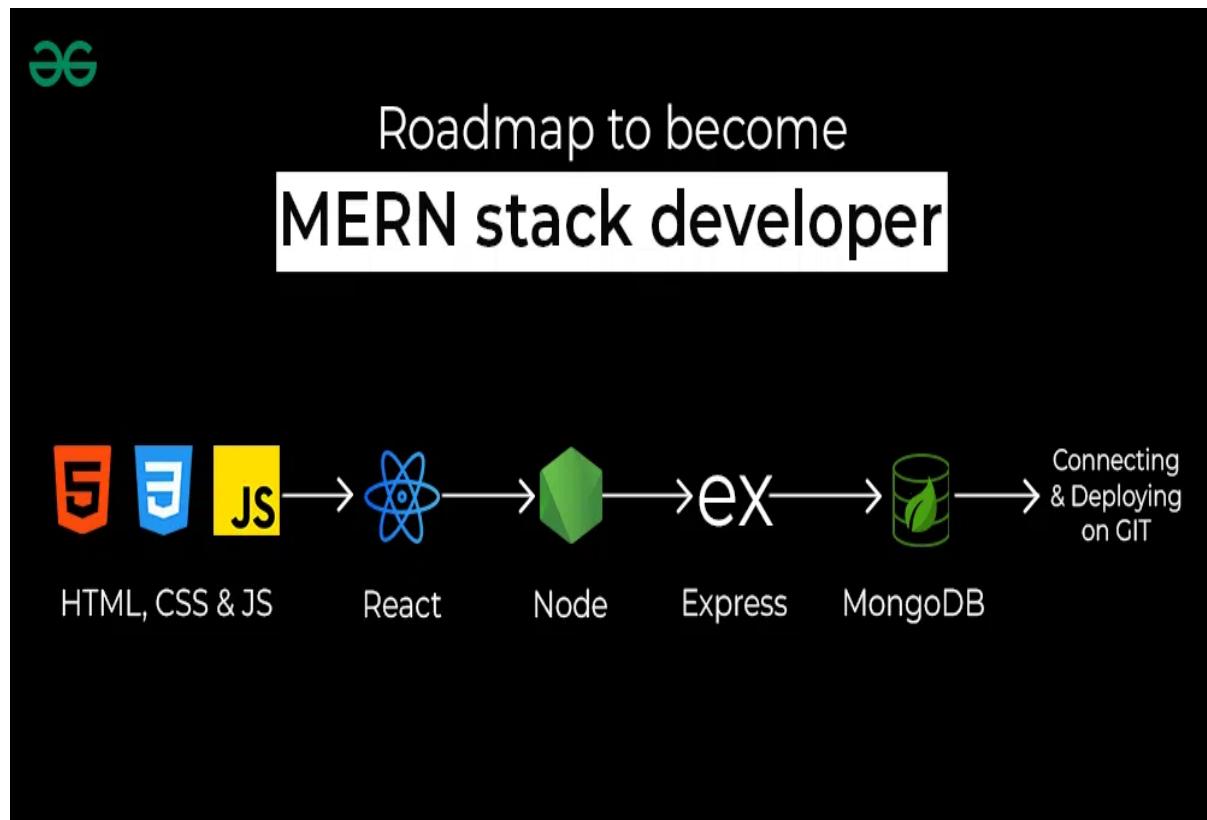
A well-crafted customer problem statement helps your team focus on what truly matters: solving real pain points. For Shopez, the goal is to create a seamless, inclusive, and scalable shopping experience. Here's the template applied to your project

Shopez Customer Problem Statement

I am	I'm trying to	but	because	which makes me feel
small business owner limited budget	create an online store to sell products	the process is overwhelming and complex	I don't have technical skills and most platforms are expensive or hard to cus-	stressed and discouragerd
shopper in a tier-2 city	find a reliable site to buy everything in one place	most e-commerce platforms cluttered or hard to local neees	real-time inventory syncing and efficient state management are complex to implement	frustrated and time-pressed
a developer launching Shopez on MERN stack	build a feature-rich scalable site that's easy to maintain	I keep running into backend integration an UI responsi-	most platforms prioritize big br ands, and I can't afford paid ads	overlooked and underappreciated
customer support agent	reach more customers without setting up my own online store	help users navigate the platform easily	there are no in-site prompts or FAQs tailored to their journey	helpless and disconnectarted

Reference: <https://github.com/ProHacksAbhi/ShopEZ-Fullstack-Project>

Example:



Lopez – Customer Problem Statement

Problem Statement (PS)	I am (Customer)	I'm trying to	Because	Which I me f
PS-1	a small business owner	set up an online store	most platforms are expensive or hard to customize	frustrated and stressed
PS-2	a shopper from a rural area	find affordable and reliable products in one place	most e-commerce sites don't cater to my region because they lack vernacular support and	ignored and disappointed

2.2 Empathy Map Canvas

Ideation Phase Empathize & Discover

Date : 19 February 2026

Team ID : LTVIP2026TMIDS80463

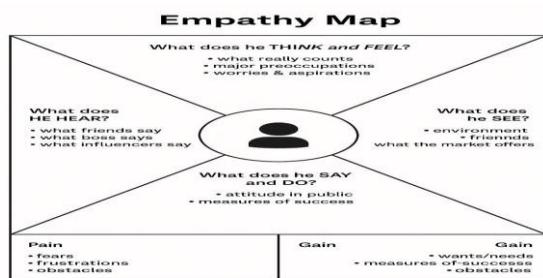
Project Name ShopEZ : One-Stop Shop for Online Purchases

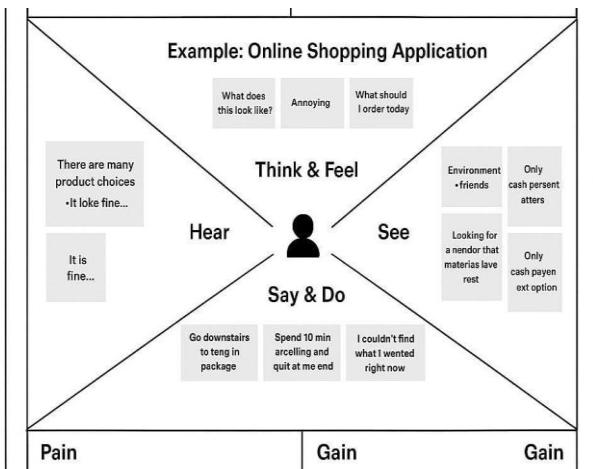
Maximum Marks : 4 Marks

Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours, needs, and emotions. It helps teams develop deeper insight into the real people using the product. With ShopEZ, understanding both buyers (like Sarah) and sellers (like the bracelet vendor) is crucial to defining valuable and inclusive shopping experiences.

Example:





2.3 Brainstorming

Ideation Phase

Date : 19 February 2026

Team ID : LTVIP2026TMIDS80463

Project Name : ShopEZ:One-Stop Shop for Online Purchases

Maximum Marks : 4 Marks

Brainstorm & Idea Prioritization

Reference: <https://www.mural.co/templates/brainstorm-and-idea-prioritization>

Step 1: Team Gathering, Collaboration & Selecting the Problem Statement

Brainstorming is the launchpad for innovation in the ShopEZ project. It creates a free and open environment where every team member can contribute ideas—no matter how unconventional.

This step is all about collaborative creativity and problem discovery.

Step 1: Team Gathering, Collaboration & Selecting the Problem Statement

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Brainstorm & idea prioritization

ShopEZ: Shop-Stop Shop for Online Purchases

Team ID: LTVIP2025TMID5843

Date: 31 January 2025

10 minutes

Project you collaborate

- Invite team members
- Share user journey (e.g. Sarah's gift scenario)
- Set clear goals
- Prepare tools like sticky notes or digital boards

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

10 minutes

How might we simplify online shopping for tyical users and Small vendors through ShopEZ?

8

Key rules of brainstorming

- | | | |
|--|-----------------|-------------------------------|
| | Stay focused | Encourage bold ideas |
| | Defer judgment | Listen actively |
| | Go for quantity | Visualize ideas when possible |
| | Go for quantity | |

Step-2: Brainstorm, Idea Listing and Grouping



Brainstorm

Generate as many ideas as possible that address your problem statement

30–45 minutes



Group ideas

Combine similar or related ideas into themes to start identifying patterns. Don't hesitate to refine and rearrange groupings as you go

User Experience

One-click checkout	Personalized product feed
Mobile-friendly design	

Seller Tools & Dashboard

Real-time inventory syncing	Seller analytics panel	
Seller analytics panel		

Multiple payment options	
Saved cart feature	

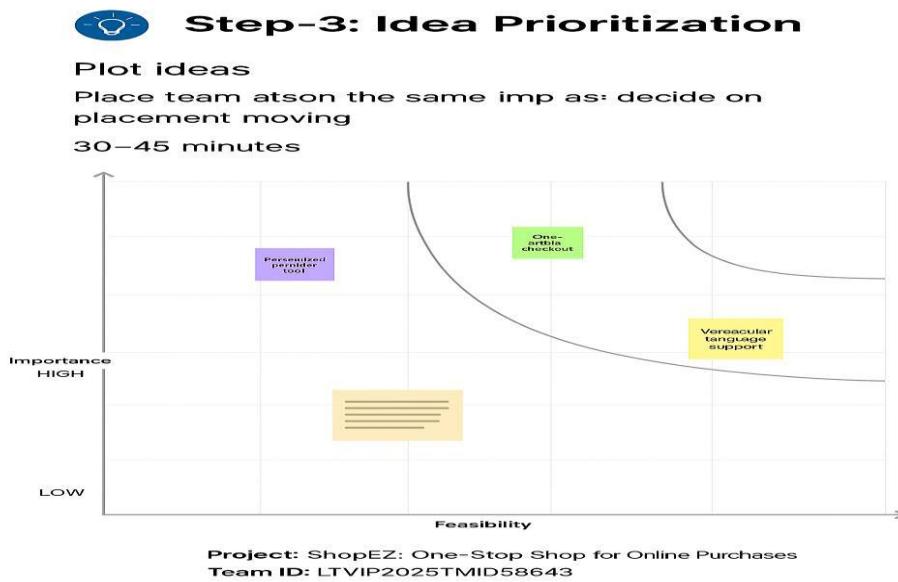
Accessibility

Vernacular language support	
Voice search	

Backend Tech/Features

Multilingual support	AI-powered recommendations	

Step-3: Idea Prioritization



3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Customer roadmap for Shopez							
	Discover	Enter Shop	Browse	Choose Products	Purchase	Loyalty	
Customer Steps	Browsing ads, social media, referrals	Open Sweb stesite of app Sign up or log in in	• Explore categoroles & Search	• Select best product • Add to cart • Check availability	• Write reviews • Join programs Receive ofters	• Write reviews Join programs Receive offers	
Touch-s points	Opening Shopez website or app. Sign up/log in	Weblike Honay: Wihility founfate Sortes night	Filtering options Search bar Product listings	Product prefer lear's quat Check aul ability	Review forms Offers	Share expe riences Earn re. wards	
Emotional Response	Access store offers Easy onboarding	Easy access, easy onboard	Select best product Ensure supply	Satisfied Confident Confid cient	Sharing experien Earnin rewards	Content Appreciative	
Opportunities	Engoing achcreatives Onfoaming	Interested Hopeful	Steamlined add to-cart Availability notifications	Anxious Relieved Tiosy choces our	Trusty Checkout Fast shipping	Encourage reviews Reward incentives	

3.2 Solution Requirement

Date :19 February 2026

Team ID :LTVIP2026TMIDS80463

Project Name :ShopEZ:One-Stop Shop for Online Purchases

Maximum Marks :4 Marks

ShopEZ - Functional Requirements

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	<ul style="list-style-type: none"> - Registration through Form - Registration through Gmail - Registration through LinkedIn
FR-2	User Confirmation	<ul style="list-style-type: none"> - Confirmation via Email - Confirmation via OTP
FR-3	User Login	<ul style="list-style-type: none"> - Login via Email & Password - Login via Gmail - Login via Facebook
FR-4	Product Browsing & Search	<ul style="list-style-type: none"> - View product listings - Filter by category , price, rating - Search by keyword

ShopEZ – Non-Functional Requirements

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The application should offer an intuitive and user-friendly interface across mobile and web platforms.
NFR-2	Security	All user data must be encrypted in transit and at rest. The system should support secure authentication and
NFR-3	Reliability	The system should operate without failure for 99.9% of the time and recover gracefully from unexpected issues.
NFR-4	Performance	Pages should load within 2 seconds under normal load and within 4 seconds under peak load.
NFR-5	Availability	The application should be accessible 24/7 with minimal downtime, especially during peak shopping hours.

3.3 Data Flow Diagram

Date :19 February 2026

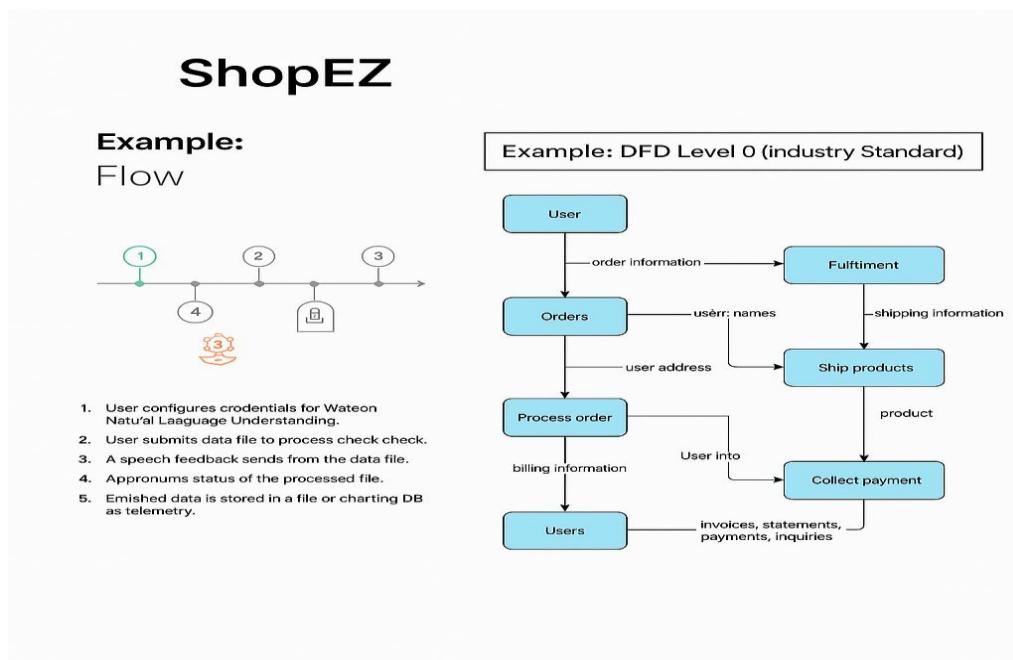
Team ID : TVIP2026TMIDS80463

Project Name :ShopEZ:One-Stop Shop for Online Purchases

Maximum Marks :4 Marks

Data Flow Diagram (DFD) Overview

A Data Flow Diagram (DFD) for ShopEZ visually maps how data moves through your e-commerce system. It helps stakeholders understand the system's structure without diving into code.



ShopEZ

User Type	Functional Requirement	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register	I can access my account / dashboard	High	Sprint-1
	Registration	USN-2	As a user, I will receive	I can receive confirmation email & click confirm	High	Sprint-1
	Registration	USN-3	As a user, I can register	I can register & access the dashboard with Facebook	High	Sprint-2
	Login	USN-4	As a user, I can register	I can view my recent orders and account info	Medium	Sprint-2
Customer (Web user)	Product Browsing	USN-7	As a web user I can browse	I can browse products without logging in <	High	Sprint-1
	Cart Management	USN-8	As a web user I can add/rem.	I can update cart contents	High	Sprint-2
Customer Care Executive	Support Dashboard	USN-9	As a support agent, I can	Access tickets and reply to users	Medium	Sprint-3
	Order Lookup	USN-10	I can search for customers	Add/edit/delete users and products	Medium	Sprint-2
	Admin Panel	USN-11	As an admin, I can manage	As an admin, I can view sales and user activity	High	Sprint-2
	Reports & Analytics	USN-12	As an admin, I can view	I generate and download reports	Medium	Sprint-4

3.4 Technology Stack

Date :19 February 2026

Team ID : TVIP2026TMIDS80463

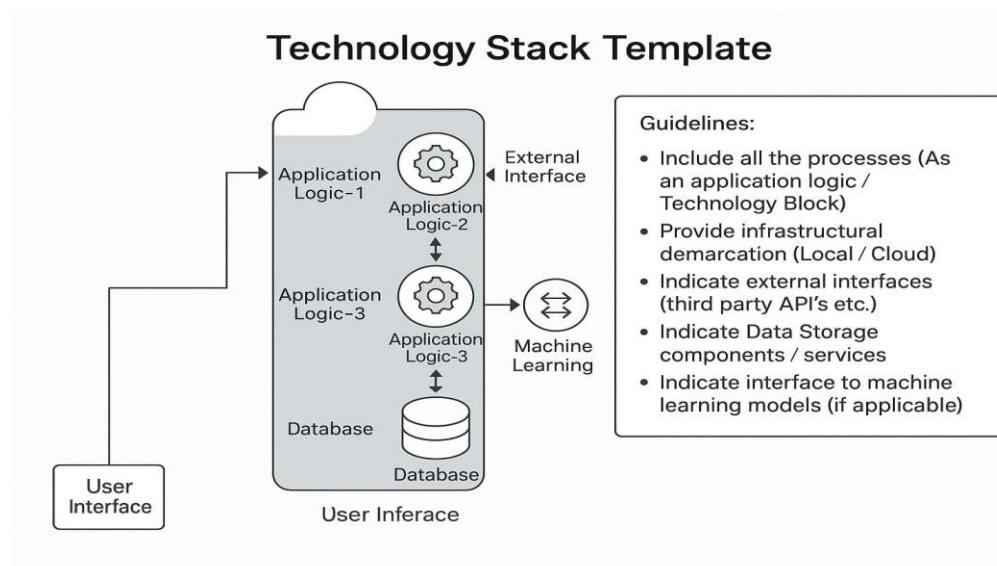
Project Name :ShopEZ:One-Stop Shop for Online Purchases

Maximum Marks :4 Marks

Technical Architecture OverviewShopEZ is a full-stack e-commerce platform built using the **MERN stack** (MongoDB, Express.js, React.js, Node.js). The architecture ensures scalability, modularity, and secure data flow between components.

Reference: <https://github.com/sameekshaapatel/Shopez-E-commerce-Application>

sameeksha/blob/main/README.md



ShopEZ – Technical Architecture Components

S.No.	Component	Description	Technology
1	User Interface	How users interact with the application (Web UI, Mobile App)	HTML, CSS, JavaScript, React.js
2	Application Logic-1	Voice-to-text processing for accessibility or chatbot input	IBM Watson Speech to Text (STT)
3	Application Logic-2	Conversational interface for customer support or virtual assistant	IBM Watson Assistant
5	Database	Stores user data, product catalog, orders, and reviews	MongoDB (NoSQL)
6	File Storage	Cloud-hosted database for scalability and availability	IBM Cloudant
7	External API-1	Stores product images, invoices, and user-uploaded files	IBM Block Storage / Local Filesystem
8	External API-2	Provides real-time weather info for delivery ETA estimation	IBM Weather API
10	Machine Learning Model	Verifies user identity based on user behavior and preferences	Aadhar API
11	Infrastructure	Hosts frontend, backend, and database services	

ShopEZ – Application Characteristics

S.No.	Characteristics	Description	Technology
1	Open-Source Frameworks	List the open-source frameworks used	React.js, Node.js, Express.js, MongoDB
2	Security Implementations	List all the security / access controls Implemented, use of firewalls etc.	JWT, bcrypt, HTTPS, OWASP guidelines, SHA-256 encryption
3	Scalable Architecture	Justify the scalability of application (3 – tier, Micro-services)	MERN stack with modular services, scalable via containerization (Docker, Kuberntess)
4	Availability	Load balancers, cloud hosting (IBM Cloud, AWS), auto-scaling groups	Load balancers, cloud hosting (IBM Cloud, AWS), auto-scaling groups
5	Performance	Design consideration for the performance of the application (number of requests per sec,	Redis caching, CDN (Cloudflare), optimized API calls, lazy loading

References

<https://c4model.com/> <https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/> <https://www.ibm.com/cloud/architecture>
<https://aws.amazon.com/architecture> <https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d> <https://github.com/sameekshaapatel/Shopez-E-commerce-Application> [sameeksha/blob/main/README.md](https://github.com/sameeksha/blob/main/README.md) <https://nme.smartinternz.com/saas-guided-project/1/shopez-e-commerce-application> <https://www.cliffsnotes.com/study-notes/12909922>

4. PROJECT DESIGN

4.1 Problem Solution Fit

Date: 19 February 2026
Team ID: TVP 2026TMD S80463

Project Name: ShopEZ: One-Stop Shop for Online Purchases

Maximum Marks : 2 Marks

Problem – Solution Fit Template

The Problem–Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer's

problem. It helps entrepreneurs, marketers, and corporate innovators identify behavioral patterns and recognize what would work and why.

Purpose

- Solve complex problems in a way that fits the state of your customers
- Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior
- Sharpen your communication and marketing strategy with the right triggers and messaging
- Increase touch-points with your company by solving frequent annoyances, or urgent or costly problems
- Understand the existing situation in order to improve it for your target group

Template:

Value Proposition C2C	CUSTOMER SEGMENTS Who are your customers? e.g. kids	CS	C. CUSTOMER CONSTRAINTS What are the constraints they are reting with? e.g. budget limitations or lack of time	CC
Existing Lifestyles C2C	JOBs: TO-BE-DONE/PROBLEMS What jobs do your customers expect to get done or what problems do they have? e.g. people want to oder or shop onlino conveniently	JBP	P. PROBLEM ROOT CAUSE What is the root cause of the probiern? e.g. busy work schedules and long check-out process	RC
Wants, Preferences C2C	TRIGGERS Identify internal or external settings that trigger problem awareness, e.g. birthdays or other special occasions	TR	S. YOUR SOLUTION How would your solution sive your current solution on? e.g.your product or service helps customers make quick and affordable online purchases	SL
Initial Longination C2C	EMOTIONS: BEFORE / AFTER identify internal or external settieds that trigger problem awareness e.g. birthdays or other special occasions	EM	CH. CHANNELS & BEHAVIOUR CHANGE Which channels do customers use? Which digital or online channes suit? e.g. customers use onlino appiicantions for holiday.girts and reference confe	CH

Reference: <https://github.com/damesh13/shopez-one-stop-shop-for-online-purchases>

4.2 Proposed Solution

Date: 19 February 2026

Team ID: LTVIP2026TMIDS80463

Project Name: ShopEZ: One-Stop Shop for Online Purchases

Maximum Marks : 2 Marks

Proposed Solution Template		
S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	Online shoppers and small-scale sellers face fragmented platforms, lack of personalization, and inefficient order management.
2	Idea / Solution description	ShopEZ is a full-stack MERN e-commerce platform offering seamless product discovery, personalized recommendations, secure checkout, and seller dashboards
3	Novelty / Uniqueness	Combines buyer personalization with seller analytics in a single platform. Supports vernacular UI and mobile-first design for broader accessibility
4	Social Impact / Customer Satisfaction	Empowers small businesses to reach digital markets. Enhances user satisfaction through faster, smarter, and more inclusive shopping experiences
5	Business Model (Revenue Model)	Built on scalable MERN architecture. Easily extendable to new regions, categories, and user segments

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Date: 19 February 2026

Team ID: LTVIP2026TMIDS80463

Project Name: ShopEZ: One-Stop Shop for Online Purchases

Maximum Marks : 2 Marks

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Use the below template to create product backlog and sprint schedule

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	2	High	Damera Sai Sreeja
Sprint-1	Registration	USN-2	As a user, I will receive confirmation email once I have registered for the application	1	High	Gowru Sujitha
Sprint-2	Registration	USN-3	As a user, I can register for the application through Facebook	2	Low	B Yoshik
Sprint-1	Registration	USN-4	As a user, I can register for the application through Gmail	2	Medium	Yaswanth Gunakala
Sprint-1	Login	USN-5	As a user, I can log into the application	1	High	Kandati Vandana

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
			by entering email & password			
	Dashboard					

Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint).

Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

ShopEZ – Burndown Chart Overview

A **Burndown Chart** is a visual tool that tracks the amount of work remaining in your project (measured in story points) against time (measured in days or sprints). It helps your team stay on track and identify bottlenecks early. **It Works for ShopEZ**

- **X-Axis (Time):** Each sprint (e.g., Sprint-1 to Sprint-4, each lasting 6 days)
- **Y-Axis (Work Remaining):** Total story points (e.g., 20 per sprint)
- **Ideal Line:** A straight line from the total story points to zero, showing expected progress
- **Actual Line:** Plots real progress based on completed story points

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Date : 19 February 2026

Team ID : LTVP 2026TMD S80463

Project Name : ShopEZ: One-Stop Shop for Online Purchases

Maximum Marks: 2marks

Project Overview

Project Name: ShopEZ

- **Project Description:** ShopEZ is a full-stack e-commerce web application built using the MERN stack (MongoDB, Express.js, React.js, Node.js). It provides a seamless online shopping experience for users and a robust admin dashboard for sellers to manage inventory and orders.

- **Project Version:** v1.0.0

- **Testing Period:** 19 february 2026

Testing Scope

- **Features and Functionalities to be Tested:**

- o User registration and login
- o Product browsing and filtering
- o Shopping cart management
- o Secure checkout and payment flow
- o Order tracking
- o Admin inventory and order management

- o Responsive UI across devices
- **User Stories / Requirements to be Tested:**

- o As a user, I want to register and log in securely.
- o As a user, I want to browse and search for products.
- o As a user, I want to add/remove items from my cart.
- o As a user, I want to complete a purchase with secure payment.
- o As an admin, I want to manage product listings and view orders.

Testing Environment

- URL/Location: <http://localhost:8080/api/products>

ShopEZ User Acceptance Testing				
Test Cases				
Test Case ID	Test Scenario	Expected Result	Actual Result	Pass/Fail
TC-001 ...	User login with valid credentials 1. Open login page 2. Enter valid email/password 3. Click login	1. Open login page 2. Enter valid email/ 3. Click login	User is redirected to dashboard	...

Bug Tracking				
Bug ID	Bug Description	Steps to Reproduce	Severity	Additional feedback
BG-001	Checkout button not responsive	1. Add item 2. Go to cart 3. Click checkout	High	Happens on mobile view only

Sign-Off Details

- **Tester Name:** Damera Sai Sreeja
- **Date of Test Completion:** 19th February 2026
- **Signature:** _____Damera Sai Sreeja_____

7. RESULTS

7.1 Output Screenshots

The screenshot shows the homepage of the ShopEZ website. At the top, there is a blue header bar with the "ShopEZ" logo on the left and a navigation menu on the right containing links for Home, Products, Cart (2), and Login. Below the header is a large banner with the text "Online Shopping BUY ANYWHERE" in a stylized font, accompanied by an illustration of a storefront with a striped awning and a shopping cart icon in a speech bubble. The main content area has a light gray background and features a "Welcome to ShopEZ" message with the subtitle "Your one-stop destination for online purchases." Below this, there is a section titled "Featured Products" displaying six items in a grid: a gold bracelet, a smart watch, a diamond ring, a handbag, a leather wallet, and a pearl necklace. Each product card includes a price, an "Add to Cart" button, and a small image of the item.

ShopEZ

Home
Products
Cart (2)
Login

Online Shopping

BUY ANYWHERE

Welcome to ShopEZ

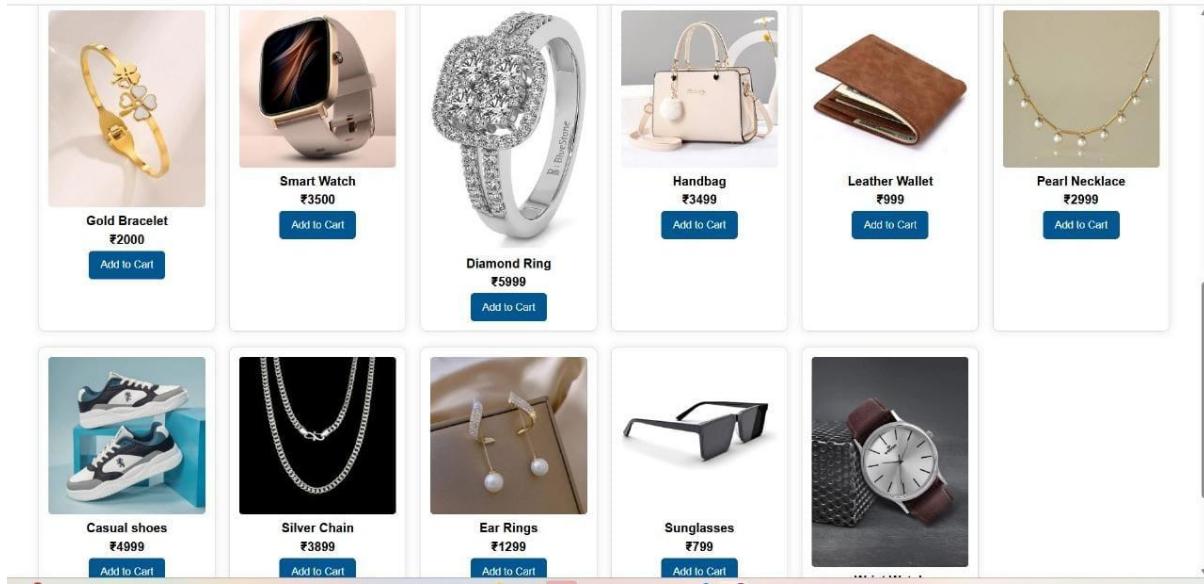
Your one-stop destination for online purchases.

Welcome to ShopEZ

Your one-stop destination for online purchases.

Featured Products

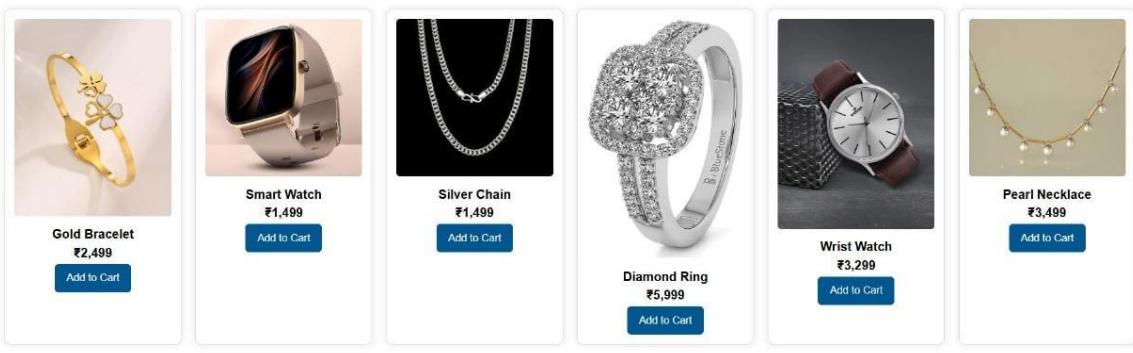
Product Image	Name	Price	Add to Cart
	Gold Bracelet	₹2000	Add to Cart
	Smart Watch	₹3500	Add to Cart
	Diamond Ring	₹5999	Add to Cart
	Handbag	₹3499	Add to Cart
	Leather Wallet	₹999	Add to Cart
	Pearl Necklace	₹2999	Add to Cart



ShopEZ

- Home
- Products
- Cart (0)
- Login

All Products



ShopEZ

- Home
- Products
- Cart (2)

[Place Order](#)

Your Cart

Diamond Ring - ₹5999 x 2 [Remove](#)

Total: ₹11998.00

[Clear Cart](#)

Login to Your Account

Email:

Password:

Don't have an account? [Register here](#)

© 2025 ShopEZ. All rights reserved.

Create a New Account

Full Name:

Email:

Password:

Confirm Password:

Already have an account? [Login here](#)

8. ADVANTAGES & DISADVANTAGES

Advantages:

- **Enhanced User Experience:** Seamless navigation, personalized recommendations, and efficient checkout significantly improve the shopping experience.
- **Increased Seller Efficiency:** Streamlined order management and insightful analytics empower sellers to grow their business.
- **Scalable Architecture:** Designed with modern technologies (React, Node.js, Firestore) that support future growth and increased demand.
- **Secure Transactions:** Focus on robust security measures ensures user data and financial information are protected.

- **Time-Saving for Users:** Eliminates the need to browse multiple sites, making shopping quicker and more convenient.

Disadvantages:

- **Initial Development Complexity:** Building a comprehensive e-commerce platform from scratch requires significant time and resources.
- **Maintenance Overhead:** Ongoing maintenance, updates, and bug fixes will be necessary to ensure optimal performance and security.
- **Competition:** Entering a highly competitive market requires strong differentiation and continuous innovation.
- **Data Security Responsibility:** As a platform handling sensitive user and transaction data, there's a continuous responsibility for maintaining high security standards.
- **Feature Creep Risk:** The desire to add more features could lead to increased complexity and delayed deployment if not managed carefully.

9. CONCLUSION

ShopEZ is envisioned as a transformative online shopping platform that addresses key pain points for both consumers and sellers. By focusing on user-friendliness, personalization, and efficient backend operations, it aims to establish itself as a truly "one-stop shop." The proposed architecture and technology stack provide a solid foundation for a scalable, secure, and performant application. While challenges exist, the clear problem-solution fit and comprehensive design position ShopEZ for success in simplifying online purchases.

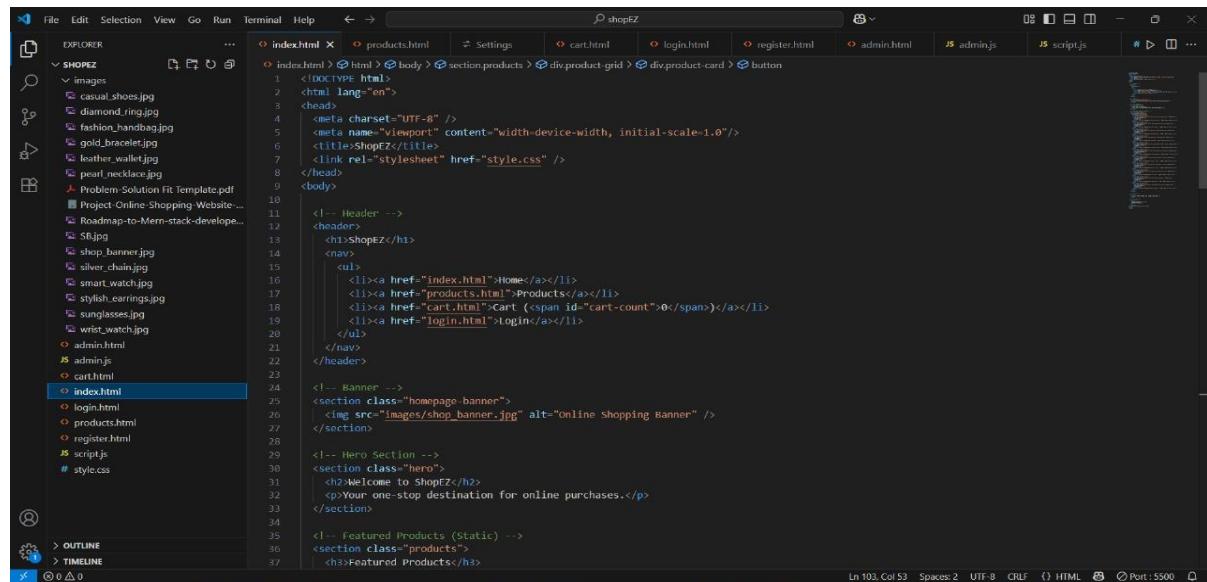
10. FUTURE SCOPE

- **Advanced Recommendation Engine:** Implement more sophisticated AI/ML algorithms for hyper-personalized product suggestions.
- **Customer Reviews & Ratings System:** Allow users to leave product reviews and ratings to build trust and aid purchasing decisions.
- **Wishlist Functionality:** Enable users to save products for later purchase.
- **Multi-Vendor Support:** Expand to allow multiple independent sellers to list and manage their products within the platform.
- **Loyalty Programs & Rewards:** Introduce programs to incentivize repeat purchases and reward loyal customers.
- **Live Chat Support:** Integrate a real-time chat feature for customer service inquiries.

- **Internationalization & Localization:** Support multiple languages and currencies for a global reach.
- **Mobile Application Development:** Develop native iOS and Android applications for an even more seamless mobile experience.
- **Integration with Shipping Carriers:** Automate shipping label generation and tracking updates.

Source Code:

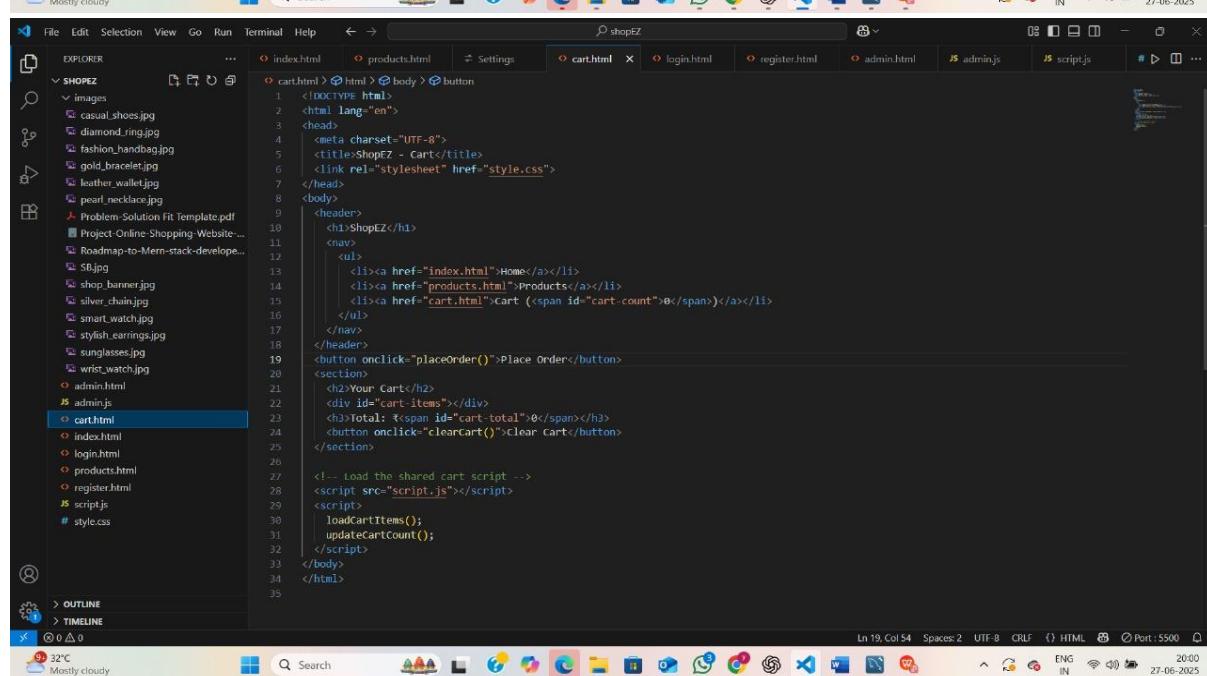
Front End:



```

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>ShopEZ</title>
    <link rel="stylesheet" href="style.css" />
  </head>
  <body>
    <!-- Header -->
    <header>
      <h1>ShopEZ</h1>
      <nav>
        <ul>
          <li><a href="index.html">Home</a></li>
          <li><a href="products.html">Products</a></li>
          <li><a href="cart.html">Cart (<span id="cart-count">0</span>)</a></li>
          <li><a href="login.html">Login</a></li>
        </ul>
      </nav>
    </header>
    <!-- Banner -->
    <section class="homepage-banner">
      
    </section>
    <!-- Hero Section -->
    <section class="hero">
      <h2>Welcome to ShopEZ</h2>
      <p>Your one-stop destination for online purchases.</p>
    </section>
    <!-- Featured Products (static) -->
    <section class="products">
      <h3>Featured Products</h3>
    </section>
  </body>
</html>

```

```

<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>ShopEZ - Cart</title>
    <link rel="stylesheet" href="style.css" />
  </head>
  <body>
    <header>
      <h1>ShopEZ</h1>
      <nav>
        <ul>
          <li><a href="index.html">Home</a></li>
          <li><a href="products.html">Products</a></li>
          <li><a href="cart.html">Cart (<span id="cart-count">0</span>)</a></li>
        </ul>
      </nav>
    </header>
    <button onclick="placeOrder()">Place Order</button>
    <section>
      <h2>Your Cart</h2>
      <div id="cart-items"></div>
      <h3>Total: <span id="cart-total">0</span></h3>
      <button onclick="clearCart()">Clear Cart</button>
    </section>
    <!-- Load the shared cart script -->
    <script src="script.js"></script>
    <script>
      loadCartItems();
      updateCartCount();
    </script>
  </body>
</html>

```

File Edit Selection View Go Run Terminal Help ↶ → shopEZ

EXPLORER SHOPEZ

- images
 - casual_shoes.jpg
 - diamond_ring.jpg
 - fashion_handbag.jpg
 - gold_bracelet.jpg
 - leather_wallet.jpg
 - pearl_necklace.jpg
- Project-Solution Fit Template.pdf
- Project-Online-Shopping-Website...
- Roadmap-to-Mern-stack-develop...
- SB.jpg
- shop_banner.jpg
- silver_chain.jpg
- smart_watch.jpg
- stylish_earrings.jpg
- sunglasses.jpg
- wrist_watch.jpg
- admin.html
- admin.js
- cart.html
- index.html
- login.html
- products.html
- register.html
- script.js
- style.css

OUTLINE TIMELINE

32°C Mostly cloudy

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Admin Dashboard</title>
    <style>
      body { font-family: Arial; padding: 20px; }
      h2 { margin-top: 30px; }
      .product, .order { border: 1px solid #ccc; padding: 10px; margin-bottom: 10px; }
      button { margin: 5px; }
    </style>
  </head>
  <body>
    <h1>ShopEZ Admin Dashboard</h1>
    <h2>All Products</h2>
    <div id="admin-products"></div>
    <h2>All Orders</h2>
    <div id="admin-orders"></div>
  </body>
</html>
```

Ln 26, Col 1 Spaces: 2 UFT-8 CRLF ⚡ HTML ENG IN 20:00 Port: 5500 27-06-2025

File Edit Selection View Go Run Terminal Help ↶ → shopEZ

EXPLORER SHOPEZ

- images
 - casual_shoes.jpg
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- sunglasses.jpg
- wrist_watch.jpg
- admin.html
- admin.js
- cart.html
- index.html
- login.html
- products.html
- register.html
- script.js
- style.css

OUTLINE TIMELINE

32°C Mostly cloudy

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>ShopEZ - Login</title>
    <link rel="stylesheet" href="style.css" />
  </head>
  <body>
    <!-- Header -->
    <header>
      <h1>ShopEZ</h1>
      <nav>
        <ul>
          <li><a href="index.html">Home</a></li>
          <li><a href="products.html">Products</a></li>
          <li><a href="cart.html">Cart <span id="cart-count">0</span></a></li>
          <li><a href="login.html">Login</a></li>
        </ul>
      </nav>
    </header>
    <!-- Login Form -->
    <section class="login-section">
      <h2>Login to Your Account</h2>
      <form class="login-form" onsubmit="handleLogin(event)">
        <label for="email">Email</label>
        <input type="email" id="email" placeholder="Enter your email" required>
        <label for="password">Password</label>
        <input type="password" id="password" placeholder="Enter your password" required>
        <br/>
        <button type="submit">Login</button>
        <p>Don't have an account? <a href="register.html">Register here</a></p>
      </form>
    </section>
  </body>
</html>
```

Ln 80, Col 3 Spaces: 2 UFT-8 CRLF ⚡ HTML ENG IN 20:00 Port: 5500 27-06-2025

File Edit Selection View Go Run Terminal Help ↶ → shopEZ

EXPLORER SHOPEZ

- images
 - casual_shoes.jpg
 - diamond_ring.jpg
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- sunglasses.jpg
- wrist_watch.jpg
- admin.html
- admin.js
- cart.html
- index.html
- login.html
- products.html
- register.html
- script.js
- style.css

OUTLINE TIMELINE

32°C Mostly cloudy

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>ShopEZ - Products</title>
    <link rel="stylesheet" href="style.css" />
  </head>
  <body>
    <!-- Header -->
    <header>
      <h1>ShopEZ</h1>
      <nav>
        <ul>
          <li><a href="index.html">Home</a></li>
          <li><a href="products.html">Products</a></li>
          <li><a href="cart.html">Cart <span id="cart-count">0</span></a></li>
          <li><a href="login.html">Login</a></li>
        </ul>
      </nav>
    </header>
    <!-- Products Section -->
    <section class="products">
      <h2>All Products</h2>
      <div id="message" style="text-align: center; font-weight: bold; color: green;"></div>
      <div class="product-grid">
        <!-- Product 1 -->
        <div class="product-card">
          
          <h3>Gold Bracelets</h3>
          <span>$2,499</span>
          <button onclick='addToCart({ name: "Gold Bracelet", price: 2499 }, this)'>Add to Cart</button>
        </div>
        <!-- Product 2 -->
        <div class="product-card">
          
          <h3>Diamond Rings</h3>
          <span>$1,999</span>
          <button onclick='addToCart({ name: "Diamond Ring", price: 1999 }, this)'>Add to Cart</button>
        </div>
      </div>
    </section>
  </body>
</html>
```

Ln 151, Col 8 Spaces: 2 UFT-8 CRLF ⚡ HTML ENG IN 20:01 Port: 5500 27-06-2025

The screenshot shows a browser-based code editor with the following details:

- File Explorer:** Shows files like `index.html`, `script.js`, and `style.css`.
- Code Editor:** Displays `script.js` content related to a shopping cart application.
- Terminal:** Shows the command `shopEZ`.
- Bottom Bar:** Includes icons for file operations, search, and various browser tabs.

```
File Edit Selection View Go Run Terminal Help < > shopEZ
EXPLORER
  ✓ index.html
  ✓ index.html
  ✓ index.html
  ✓ login.html
  ✓ register.html
  ✓ admin.html
  ✓ admin.js
  ✓ script.js
  # style.css

< OUTLINE >
< TIMELINE >

script.js
1  // products.html
2  const cart = JSON.parse(localStorage.getItem("cart")) || [];
3  const totalItems = cart.reduce((sum, item) => sum + item.quantity, 0);
4  const cartCountSpan = document.getElementById("cart-count");
5  if (cartCountSpan) cartCountSpan.textContent = totalItems;
6
7
8  function addtoCart(name, price) {
9    const cart = JSON.parse(localStorage.getItem("cart")) || [];
10   const existingItem = cart.find(item => item.name.toLowerCase() === name.toLowerCase());
11
12   if (existingItem) {
13     existingItem.quantity += 1;
14   } else {
15     cart.push({ name, price, quantity: 1 });
16   }
17
18   localStorage.setItem("cart", JSON.stringify(cart));
19   alert(`${name} added to cart!`);
20   updateCartCount();
21 }
22
23 function removeFromCart(productName) {
24   let cart = JSON.parse(localStorage.getItem("cart")) || [];
25   cart = cart.filter(item => item.name !== productName);
26   localStorage.setItem("cart", JSON.stringify(cart));
27   loadCartItems(); // Refresh content
28   updateCartCount();
29 }
30
31 function loadCartItems() {
32   const cart = JSON.parse(localStorage.getItem("cart")) || [];
33   const cartItemsDiv = document.getElementById("cart-items");
34   const cartTotal = document.getElementById("cart-total");
35
36   if (!cartItemsDiv || !cartTotal) return;
```

Back End:

The screenshot shows a Java application named 'ShopezApplication' in an IDE. The code editor displays 'AdminController.java' with the following content:

```
shopoz > src > main > java > com > shopoz > controller > AdminController.java
1 package com.shopoz.controller;
2
3 import org.springframework.web.bind.annotation.RequestMapping;
4 import org.springframework.web.bind.annotation.GetMapping;
5 import org.springframework.web.bind.annotation.RestController;
6
7 @RestController
8 @RequestMapping("/api/admin")
9 public class AdminController {
10
11     @GetMapping("/status")
12     public String checkStatus() {
13         return "Admin API is running!";
14     }
15 }
16
```

The IDE interface includes a left sidebar with project navigation, a bottom navigation bar with tabs like PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS, and a status bar at the bottom.

The screenshot shows a Java IDE interface with the following details:

- Project Explorer:** Shows the project structure for "SHOPEZ". The "src" folder contains "main" which has "java\com\shopez" and "controller" packages. Inside "controller", "AdminController.java" and "ProductController.java" are listed.
- Code Editor:** The "ProductController.java" file is open. It contains annotations like @Autowired, @GetMapping, and @PostMapping, and methods for managing products.
- Terminal:** The terminal shows the command "PS C:\Users\Y.SAI DEEKSHITA\Downloads\shopez>".
- Status Bar:** Shows "Ln 45, Col 5" and "2008".

The screenshot shows a Java IDE interface with the following details:

- Project Explorer:** Shows the project structure for "SHOPEZ". The "src" folder contains "main" which has "java\com\shopez" and "controller" packages. Inside "controller", "AdminController.java", "ProductController.java", and "WebConfig.java" are listed.
- Code Editor:** The "WebConfig.java" file is open. It contains configuration code for Spring MVC, specifically for CORS settings.
- Terminal:** The terminal shows the command "PS C:\Users\Y.SAI DEEKSHITA\Downloads\shopez".
- Status Bar:** Shows "Ln 14, Col 65" and "2008".

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under the "shopez" folder, including "src", "main", "resources", "test", "target", and "com".
- Editor:** Displays the "Product.java" file content:

```
26 package com.shopez.model;
27
28 public class Product {
29     private String id;
30     private String name;
31     private double price;
32
33     public String getName() { return name; }
34     public void setName(String name) { this.name = name; }
35
36     public double getPrice() { return price; }
37     public void setPrice(double price) { this.price = price; }
38
39     public String getDescription() { return description; }
40     public void setDescription(String description) { this.description = description; }
41 }
```
- Terminal:** Shows the command line prompt "PS C:\Users\Y.SAI DEEKSHITA\Downloads\shopez>".
- Status Bar:** Displays "Ln 14, Col 32 - Spaces: 4 - UTF-8 - CRLF" and "Java" status indicators.

The screenshot shows the Visual Studio Code interface with the following details:

- File Explorer:** Shows the project structure under the "shopez" folder, including "src", "main", "resources", "test", "target", and "com".
- Editor:** Displays the "ProductRepository.java" file content:

```
1 package com.shopez.repository;
2
3 import com.shopez.model.Product;
4 import org.springframework.data.mongodb.repository.MongoRepository;
5 import org.springframework.stereotype.Repository; // This is required!
6
7 @Repository
8 public interface ProductRepository extends MongoRepository<Product, String> {
9 }
```
- Terminal:** Shows the command line prompt "PS C:\Users\Y.SAI DEEKSHITA\Downloads\shopez>".
- Status Bar:** Displays "Ln 9, Col 2 - Spaces: 4 - UTF-8 - CRLF" and "Java" status indicators.

The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows the project structure under the "SHOPEZ" folder, including "src" (containing "main" with "java\com\shopez" and various Java files like "AdminController.java", "ProductController.java", "WebConfig.java", "Product.java", "ProductRepository.java", and "ShopezApplication.java").
- Terminal:** Displays the command line output: "PS C:\Users\Y.SAI DEEKSHITA\Downloads\shopez>".
- Code Editor:** Shows the content of "ShopezApplication.java":

```
1 package com.shopez;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.boot.autoconfigure.SpringBootApplication;
5
6 @SpringBootApplication
7 public class ShopezApplication {
8
9     public static void main(String[] args) {
10         SpringApplication.run(ShopezApplication.class, args);
11     }
12 }
13
```

The code editor also shows the status bar with "Ln 13, Col 1" and "Spaces: 4" and "UTF-8".

The screenshot shows the VS Code interface with the following details:

- File Explorer:** Shows the project structure under the "SHOPEZ" folder, including "src" (containing "main" with "java\com\shopez" and various Java files like "AdminController.java", "ProductController.java", "WebConfig.java", "Product.java", "ProductRepository.java", and "ShopezApplication.java") and "resources" (containing "application.properties").
- Terminal:** Displays the command line output: "PS C:\Users\Y.SAI DEEKSHITA\Downloads\shopez>".
- Code Editor:** Shows the content of "application.properties":

```
1 spring.data.mongodb.uri=mongodb://localhost:27017/shopez
2 spring.data.mongodb.database=shopez
3
4 # Optional for debugging
5 spring.main.web-application-type=servlet
6 spring.security.user.name=admin
7 spring.security.user.password=admin123
8 #spring.mvc.pathmatch.matcher.strategy=ant_path_matcher
9 server.port=8080
```

The code editor also shows the status bar with "Ln 9, Col 17" and "Spaces: 4" and "UTF-8".

The screenshot shows an IDE interface with the following details:

- File Structure (EXPLORER):** The project is named "SHOPEZ" and contains a "shopez" module with "src", "main", and "target" sub-modules. "src" contains "static", "templates", and "application.properties". "main" contains "resources". "target" contains "classes", "com", and "WebConfig.class".
- POM File Content (pom.xml):**

```
<?xml version="1.0" encoding="UTF-8"?>
<project xmlns="http://maven.apache.org/POM/4.0.0"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
    <parent>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-parent</artifactId>
        <version>3.1.3</version>
        <relativePath/> <!-- lookup parent from repository -->
    </parent>
    <groupId>com.shopez</groupId>
    <artifactId>shopez</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>shopez</name>
    <description>ShopEZ - E-Commerce Backend using Spring Boot & MongoDB</description>
    <properties>
        <java.version>17</java.version>
    </properties>

```
- Terminal:** Shows the command "mvnw" being run.
- Bottom Status Bar:** Displays "Ln 41, Col 9, Spaces: 4, UTF-8, LF, XML, Go Live, 2008, ENG IN, 27-06-2025".

GitHub & Project Demo Link

- **GitHub Repository:** Shopez-One-Stop-Shop-For-Online-Purchases
- **Project Demo link:** <https://drive.google.com/file/d/12RVF9gA0GGzxsvDuTFEmYtx09sPQh44q/view?usp=sharing>