



## Project Name: ShopForHome

ShopForHome is a popular store offering home décor products. Due to COVID-19, all offline shopping has stopped, and the store wants to move its operations to an online platform by creating a web application.

There are two types of users in this application:

1. **User**
  2. **Admin**
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### User Stories:

1. **Login, Logout, and Registration:**
  - As a User, I should be able to log in, log out, and register on the application.
2. **View Products by Category:**
  - As a User, I should be able to browse products based on categories (e.g., Furniture, Home Décor, Lighting).
3. **Product Filtering:**
  - As a User, I should be able to filter products by price, rating, and category.
4. **Add to Cart:**
  - As a User, I should be able to add products to the shopping cart.
5. **Manage Cart Quantity:**
  - As a User, I should be able to increase or decrease the quantity of items in my shopping cart.
6. **Unlimited Product Addition:**
  - As a User, I should be able to add an unlimited number of products to the shopping cart.
7. **Wishlist Feature:**
  - As a User, I should have a wishlist option where I can save products that I want to purchase later.
8. **Discount Coupons:**
  - As a User, I should receive different discount coupons for promotions or sales events.

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## Admin Stories:

1. **Login, Logout, and Registration:**
    - As an Admin, I should be able to log in, log out, and register on the application.
  2. **User Management (CRUD):**
    - As an Admin, I should be able to create, read, update, and delete user accounts.
  3. **Product Management (CRUD):**
    - As an Admin, I should be able to create, read, update, and delete products in the catalog.
  4. **Bulk Product Upload via CSV:**
    - As an Admin, I should be able to upload product details in bulk using a CSV file.
  5. **Stock Management:**
    - As an Admin, I should be able to view the stock of products and receive notifications when the stock level drops below 10.
  6. **Sales Reports:**
    - As an Admin, I should be able to generate sales reports for a specified duration.
  7. **Discount Coupons for Specific Users:**
    - As an Admin, I should be able to create and assign discount coupons to specific sets of users.
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## Instructions:

1. The **front end** of the application should be implemented using **Angular** to handle the user interface, components, and interactions.
  2. The **back end** of the application should be implemented using **ASP.NET Core MVC**, handling business logic, database operations, and API development.
  3. Use the **assets/images** folder to store product images.
  4. Provide the database schema in a **.sql** file.
  5. Create separate **Web API controllers** for:
    - Search functionality
    - Sales reports
    - Discount coupons
  6. Use **Entity Framework (EF)** or any other ORM tool to communicate with the database.
  7. Use **Swagger** for testing the Web APIs and providing API documentation.
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## Sprint Plan:

### Sprint I Objectives:

1. Create the Use Case document.
2. Design the database schema with all necessary tables and their relationships.
3. Select **Entity Framework** (or any other ORM tool) to communicate with the database.
4. Identify the required controllers for the back end (ASP.NET Core MVC).
5. Create the initial **Angular components** and set up the static e-commerce views for product listings and images.

### **Sprint II Objectives:**

1. Implement the **DbContext** object using the selected ORM tool (e.g., Entity Framework).
2. Develop **CRUD operations** for Users and Products in the back end (ASP.NET Core MVC).
3. Implement the **Bulk product upload** feature using CSV files in the back end.
4. Build the **Cart functionality** (add, update, delete) using Angular for the front end.

### **Sprint III Objectives:**

1. Develop the **Web API** for search functionality, reports, and discount coupons in ASP.NET Core MVC.
  2. Integrate **Swagger UI** and test the Web API.
  3. Implement **search and filtering** features in the Angular front end that consume the Web API.
  4. Develop **stock management** and **sales report** generation features for Admin users in ASP.NET Core MVC.
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### **Reference:**

For further reference on the e-commerce store design and functionality, please visit:

- <https://www.pepperfry.com/>