

Search about

Newegg app

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1. Feasibility Study & Project Proposal

1.1 Introduction:

The Newegg app project aims to leverage the increasing demand for online electronics shopping by providing users with a seamless and efficient platform. With the rising trend in e-commerce, particularly in the electronics sector, the development of a dedicated mobile application for Newegg is deemed essential to enhance customer experience and expand market reach.

1.2 Problems:

The current challenges faced by Newegg include the need to adapt to changing consumer behaviors and the growing competition in the e-commerce space. The absence of a dedicated mobile app limits the accessibility and convenience for users. Addressing these issues through the development of a feature-rich and user-friendly app is crucial for maintaining and expanding Newegg's market presence.

1.3 Background:

Newegg, an established player in the electronics retail sector, has successfully operated an online platform. However, the absence of a mobile app poses limitations in catering to the on-the-go needs of modern consumers. The Newegg app aims to fill this gap, providing a platform that aligns with current market trends and customer preferences.

2. Project Requirements

2.1 Functional Requirements (FR):

User Registration and Authentication:

- Users should be able to create accounts and log in securely.

Product Browsing and Search:

- Users should be able to browse products by categories and specifications.
- The app should provide an efficient search functionality.

Shopping Cart Management:

- Users should be able to add, remove, and view items in the shopping cart.

Secure Checkout Process:

- The app should offer a secure and user-friendly checkout process.

Order Tracking:

- Users should be able to track the status and location of their orders.

User Reviews and Ratings:

- Users should have the ability to write reviews and rate products.

Account Management:

- Users should be able to manage their account settings.

Notifications:

- Users should receive notifications for promotions and updates.

2.2 Non-functional Requirements (NFR):

Performance:

- The app should load quickly and handle a large number of simultaneous users.

Security:

- Secure encryption for user data and transactions.

Usability:

- Intuitive and responsive design for a positive user experience.

Compatibility:

- Support for various devices and operating systems.

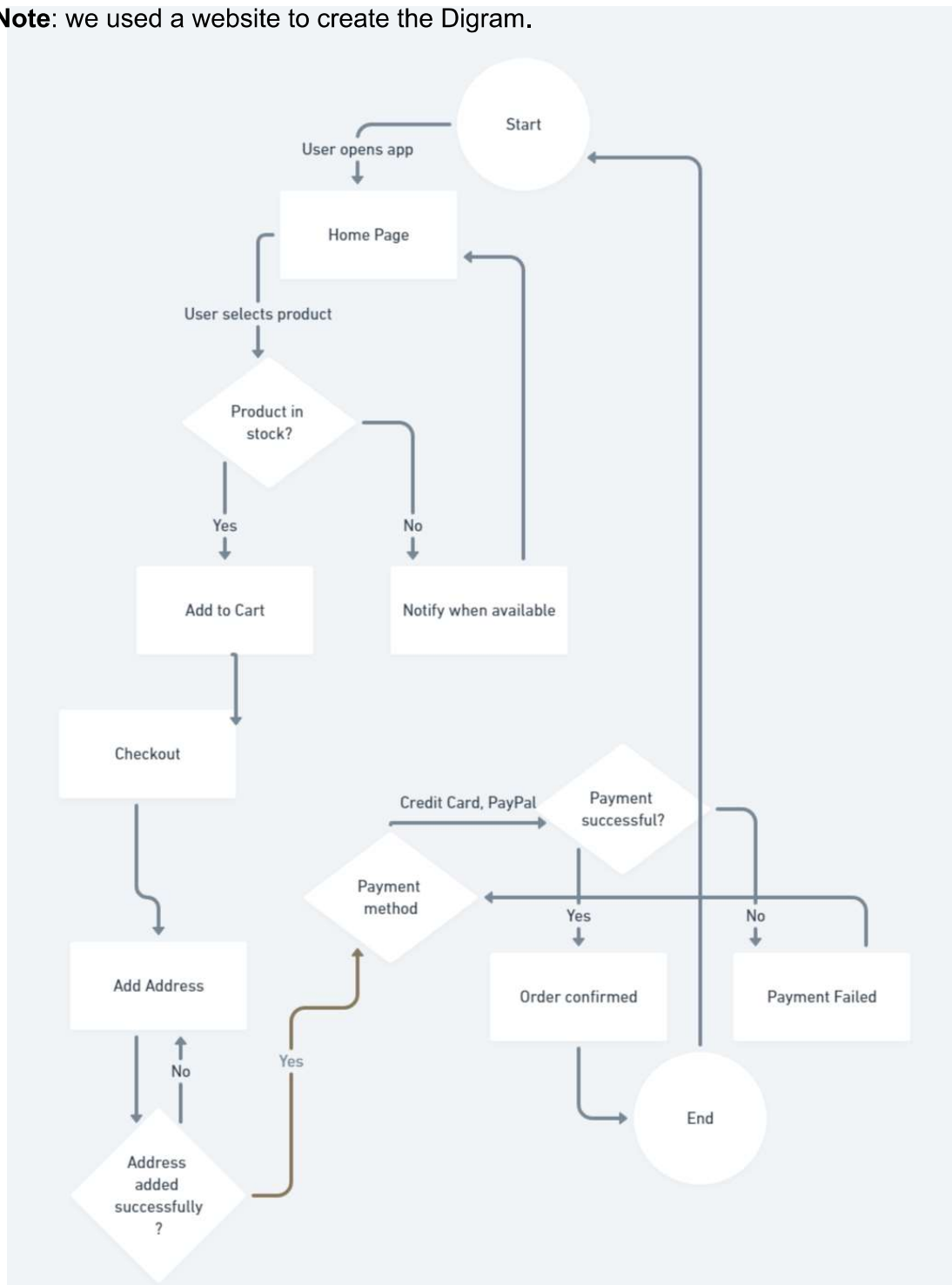
2.3 Overall:

The project requirements outline the functional and non-functional elements crucial for the Newegg app's success, ensuring it meets user needs and industry standards.

3. Activity Diagram

The activity diagram illustrates the flow of most processes within the Newegg app, including start points, end points, decision paths, and overall process flow.

Note: we used a website to create the Digram.



4. Project Use Case Modelling

4.1 Actors:

- User: Interacts with the app to browse, shop, and manage their account.
- Admin: Manages product listings, reviews, and promotions.

4.2 Use Cases & Related Use Cases:

Table 1: Main Use Cases

Use Case	Description
Browse Products	User searches and views products.
Add to Cart	User adds items to the shopping cart.
Checkout	User proceeds through a secure checkout process.
Track Order	User tracks the status and location of their orders.
Write Reviews	User leaves reviews and ratings for products.

Table 2: Related Use Cases

Use Case	Related Use Cases
Checkout	Payment Process, Order Confirmation.
Track Order	View Order History, Receive Notifications.

4.3 Overall:

The use case modeling identifies and describes interactions between users and the Newegg app, ensuring comprehensive coverage of functionalities.

5. Sequence Diagrams

5.1 Objects:

- User
- Shopping Cart
- Product
- Order
- Payment Gateway

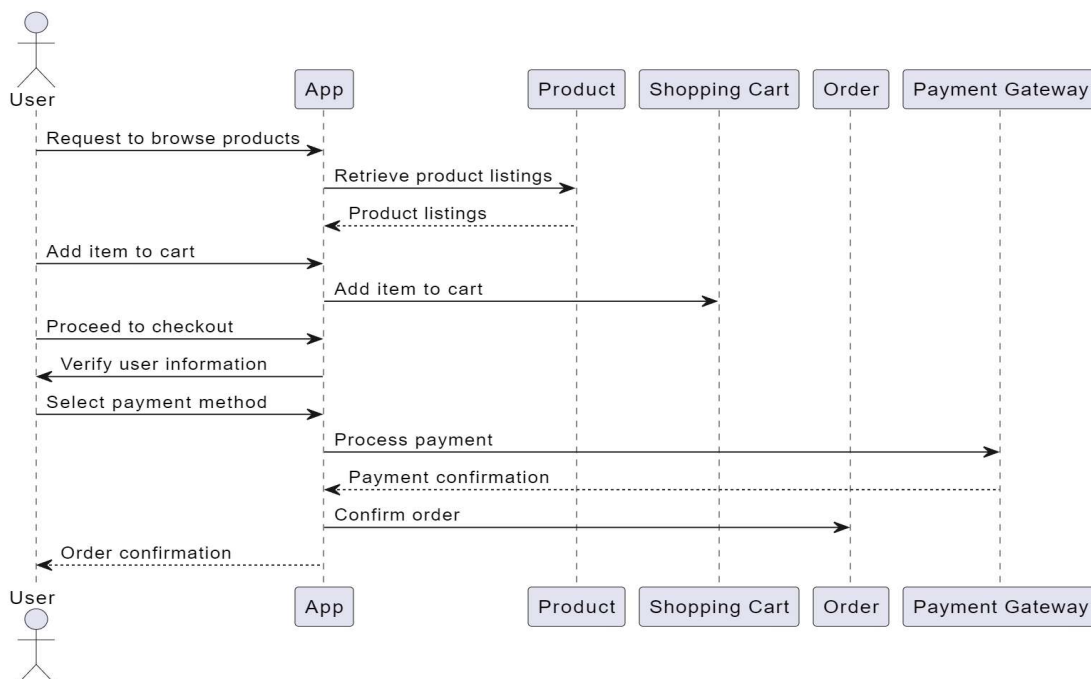
5.2 Messages:

- User requests to browse products.
- App responds with product listings.
- User adds item to the cart.
- User proceeds to checkout.
- App verifies user information.
- User selects payment method.
- App processes payment and confirms order.

5.3 Overall:

The sequence diagrams illustrate the interactions between different components or objects, providing a visual representation of the flow of actions within the Newegg app

Note: we used a website to create the Sequence Diagrams.



6. User Interface Design

6.1 Classes, Attributes, and Operations:

- **User Class:**
 - Attributes: Username, Password, Email
 - Operations: Login, Logout, UpdateProfile
- **Product Class:**
 - Attributes: ProductID, Name, Price
 - Operations: ViewDetails, AddToCart
- **Shopping Cart Class:**
 - Attributes: CartID, Items
 - Operations: AddItem, RemoveItem, ViewCart

6.2 Associations:

- User - Product: Users can view and interact with products.
- User - Shopping Cart: Users can add and manage items in their shopping cart.

6.3 Overall:

The user interface design includes classes, attributes, operations, and associations, ensuring a clear and intuitive layout for the Newegg app.

By addressing these aspects, the Newegg app project aims to provide a robust, user-friendly, and visually appealing platform for online electronics shopping.

