**E-Commerce Project**

**Objective:**

To create a functional E-Commerce Project like Amazon that provides users functionalities such as registration, login, profile management, product inventory management (admin module).

**Problem Statement:**

This project aims to replicate core functionalities of Amazon, catering to both user and administrative needs. The primary focus involves implementing user registration, login, profile management, and an intuitive 'add to cart' functionality. Additionally, the project provides administrators to add new products and categories to the platform.

**Features of the Application:**

1. **Registration (Out of scope):**

* Users can create an Amazon account by providing their name, Phone Number email address, and creating a password.
* Amazon will conduct validation checks to ensure the email address is in a valid format and not already associated with an existing Amazon account.
* The password must meet Amazon's minimum complexity requirements, which typically include a combination of letters, numbers, and special characters.
* Upon successful registration, users will be directed to the Amazon homepage or prompted to log in if they were in the process of making a purchase.

1. **Login (out of Scope):**

* Users can log in to their Amazon account using their registered phone number and password.
* If the user enters incorrect credentials, an error message will be displayed, prompting them to retry or reset their password.
* Upon successful login, users will be redirected to their Amazon homepage.

1. **Profile Page (Out of Scope):**

* On the profile page, users can view and update their personal information, such as name, email address, phone number, and shipping address.
* Additionally, users can view their order history, track current orders, and manage returns and refunds.

1. **Add to Cart Functionality (out of Scope)**

* Users can add products to their shopping cart by clicking the "Add to Cart" button displayed on product pages.
* Upon clicking the button, the selected product is added to the user's cart, where they can view a summary of items added.
* Users can adjust the quantity of items in the cart and remove products if desired.

1. **Amazon Admin Page (In Scope)**

**Product Management:**

* Admins have the ability to add new products to the Amazon catalogue, including product details, images, and pricing information.
* Also, Admins have the ability to edit, delete, view products.
* They can edit existing product listings, update inventory levels, and manage product categorization and attributes.

**Validations:**

1. **User info validation:** Validate the email for its correctness, name shouldn’t be more than 20 characters, the password shouldn’t be more than 12 characters and less than 8 characters, and it should include at least 1 special character and 1 letter and 1 capital letter. All the fields are required and shouldn’t be empty.
2. **Login Validation**: The email and password should be in the correct format and not empty.

**Tools and Technologies Used:**

1. **JavaScript & ES 7**
2. **HTML (Hypertext Markup Language)**
3. **CSS (Cascading Style Sheets)**
4. **JAX / RS - Jersey API**

**More features that can be implemented**

1. Admins can view and manage customer orders placed on Amazon, including order processing, fulfilment, and shipping.
2. They have the capability to track orders, update order statuses, and handle order cancellations or modifications.
3. Admins can create, edit, and deactivate user accounts within the Amazon Admin system.
4. Implement a system for users to leave reviews and ratings for products they have purchased.
5. Allow users to save and manage multiple shipping addresses.

**Conclusion:**

The E-Commerce project aims to develop a comprehensive platform that mirrors the functionalities of the renowned e-commerce giant, Amazon. Utilizing JavaScript and Jax/RS technologies, this project will lay the groundwork for implementing essential features and facilitating future expansions.