**Usage scenario**

The E-commerce site has two types of users. One is the Consumer and the other is the Admin. The usage scenario can be divided into small modules for better understanding according to their roles.

**The Register and Sign-in:** The first thing a consumer will see going into the website is the register and sign-in page. Here the consumer can register and create a profile providing his/her name, email-address, password, and finally confirming the password.

**Home Page:** After the profile is created, the consumer can see the home page. There will be a search bar where he can search for the desired product with its name and brand. When any search is done, the website will show the most popular products. Apart from that, the home page also contains a portion that displays different types of products along with its picture, name, brand, price and other specifications.

**Product Page:** The product page is displayed when the consumer clicks on any product. This page contains the title of the product, its description, and price. After that a portion of the page displays if the product is available or it is out of stock. Then it shows the option of quantity from where the consumer can select the number of products he/she wants. This page also shows the review of the product from the customer. Finally, there is an option to add the product to the consumer’s cart.

**Shopping Cart:** The shopping cart page mainly displays the list of the products that have been added to the cart by the consumer. It specifically displays the product image, its name, price, quantity, the subtotal, and finally the options from where the consumer can delete the product from the cart or select the “proceed to check out” option to place the order.

**Shipping Page:** The shipping page contains options where the consumer has to enter his address, city, and country. Mainly, the detailed address of the consumer where the product will be shipped. Here the consumer will have blank space for entering the address, for example, the house, block, and road number. The second option is of the city, the consumer can click his city from the suggestion list. Finally, he will click on the country from the suggestion list.

**Payment:** When a consumer proceeds to check out, he will see the payment options. There are three different payment options. He can select any of the payment options that he wishes among the Bkash system, Credit/Debit Card System, and pay by cash. If he selects the Bkash system, he will have to enter his bkash number in it after that. Then he has to confirm the number, and the system will deduct the amount from his Bkash account and send a notification to the consumer as soon as the payment is done. If he selects the Card option, he will have to enter the account number and confirm it. Then the system will deduct the amount from his account and send a notification as the confirmation of payment is done. If he selects pay by cash, then he can pay the amount when he receives the product and pay by cash.

**Order Summary Page:** This page contains different types of order related information. Such as, the shipping Information, payment information, ordered items information and placed order option. When the Consumer will click on the shipping option, he will be able to see the information about the shipping. If he clicks on the payment option, he will see information about the payment done so far, their methods and other details. If he/she clicks on the ordered items option, it will display him the list of the items he has ordered so far. If he clicks on the placed order option, he will see the order details of the products that he has added in the cart, and those can place the order.

**Place Order:** This module contains the check out process, which is providing the shipping details and then selecting the payment method from the given options.

**Consumer:** The user module contains the profile of the consumer. There is consumer information  (name, email address) that was provided by the consumer while creating the account. Then there is an option to check the order list of each item. Each order list contains ID, date, total cost, paid, and the delivered details.

**Admin:** The admin module has a number of responsibilities to supervise the system. The admin takes care of the product management, and the consumer management. In the user management, he can check the name of the consumer, his email, order list and other details. He can also prepare and display the order details to the consumers. After each payment is done, he can mark on the consumer's account as paid. He can also create a product by adding the name, price, image, brand and other specifications of the product, stock products and categorize the products.

**Noun Identification**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Noun** | **P/S** | **Attributes** |
|  | E commerce | P |  |
|  | User | S | 71 |
|  | Consumers | S | 71 |
|  | Admin | S | 71 |
|  | Website | S | 6,19,22,25,31,58,59,60 |
|  | Home page | S | 7,10,12 |
|  | Create a profile | S |  |
|  | Name | S |  |
|  | Email Address | S |  |
|  | Search bar | S |  |
|  | Search | S |  |
|  | Product | S | 18,19,29 |
|  | Product name | S |  |
|  | Product Brand | S |  |
|  | Popular Products | S |  |
|  | Display | P |  |
|  | Picture | S |  |
|  | Other specifications | S |  |
|  | Product page | S | 20,21,22,25 |
|  | Title of the Product | S |  |
|  | Description | S |  |
|  | Price | S |  |
|  | Quantity | S |  |
|  | Number of Products | S |  |
|  | Review of the Product | S |  |
|  | Add the Product | S |  |
|  | Consumer’s cart | S |  |
|  | Shopping Cart | S |  |
|  | List of the Products | S | 13,14,15,17,18 |
|  | Cart | S |  |
|  | Subtotal | S |  |
|  | Delete the Product | S |  |
|  | Place the Order | S |  |
|  | Shipping Page | S |  |
|  | Address | S |  |
|  | City | S |  |
|  | Country | S |  |
|  | House | S |  |
|  | Block | S |  |
|  | Road Number | S |  |
|  | Suggestion List | S | 22,29 |
|  | Check Out | S |  |
|  | Payment | S | 45,47,71 |
|  | Bkash | S |  |
|  | Credit/Debit Card Number | S | 51,53 |
|  | Cash | P |  |
|  | Bkash Number | S | 51,53 |
|  | Confirm the Number | S |  |
|  | Deduct the Amount | S |  |
|  | Notification | S |  |
|  | Account Number | S | 71 |
|  | Confirm | S |  |
|  | Amount | S |  |
|  | Receive the Product | S |  |
|  | Page | S |  |
|  | Order | S |  |
|  | Information | S |  |
|  | Shipping Information | S |  |
|  | Payment Information | S |  |
|  | Ordered Items Information | S |  |
|  | Placed Order | S |  |
|  | Shipping | S |  |
|  | Methods | P |  |
|  | Other Details | S |  |
|  | Ordered Items | S |  |
|  | List of the Items | S |  |
|  | Placed Order | S |  |
|  | Order Details of the Product | S |  |
|  | Module | P |  |
|  | Check out | S |  |
|  | Profile | S | 8,9,44,47,51,72,75 |
|  | Id | S | 8,9,72,75 |
|  | Total cost | S |  |
|  | Delivered Details | S |  |
|  | Number | S |  |
|  | Responsibilities | P |  |
|  | Supervise | P |  |
|  | Product Management | S |  |
|  | Consumer Management | S |  |
|  | Create a Product | S |  |
|  | Stock Products | S |  |
|  | Categorized the Product | S |  |

**Data Base Modeling**

**Website:** Home page, Product page, Price, Review of the Product, Subtotal,Shipping Information, Payment Information, Ordered Items Information

**Home page:** Create a profile , Search bar , Product

**Product:**  Product page, List of the Product.

**Product page :** Title of the Product, Description, Price, Review of the Product.

**List of the Products:** Product name, Product Brand, Popular Products, Other specifications.

**Suggestion List:**  Price, List of the Products.

**Payment:** Credit/Debit Card Number, Bkash Number, Profile.

**Credit/Debit Card Number :** Account Number, Amount.

**Bkash Number:** Account Number, Amount.

**Profile:** Name , Email Address, Credit/Debit Card Number,Bkash Number, Account Number, Id, Number .

**Id:** Name , Email Address, Account Number, Number .