**2. System Analysis**

**2.1 Information Gathering**

As the goal of the website is ease of use and to provide an interactive interface, extensive research has been done to gain an insight into the needs and behaviors of various users. The working of the website is made convenient and easy to use for the end user.

Users can be classified into two types based on their knowledge of the products that suit their needs. They can be classified as users who know about the product that would satisfy their needs and users who have to figure out the product that would satisfy their needs. Users who know about the product should be able to find the product easily with the click of a button. Such users can search for the product by using the product name as the search term. Users who have to figure out the product that would satisfy their needs could use a search term to find a list of products and then should be able to filter the results based on various parameters like product type, manufacturer, price range, platform supported etc.

The users should be able to view the complete specification of the product and various images at different Zoom levels. The user should be able to read the customer reviews for the product and the ratings provided. They should be able to write their own reviews. They should be able to print out the specifications for a product or email the product page to a friends etc.

To increase the ease of use the user should be able to add a product to the shopping cart by dragging a product and dropping it in the shopping cart. A user should able to edit the contents of a shopping cart. They should be able to update the quantities of the products added to the cart and remove the products from the cart. The user should be able to remove the product from the shopping cart by dragging the product and dropping it outside the cart.

The website can be made interactive by pop up messages when a product has been dropped in to the shopping cart or out of the shopping cart. The user can be notified 4 if the cursor enters a drop area and the object that could be dropped. Also users are impatient making it important to load pages soon.

Other than this, I did a lot of research on various other methods of building this website which and was able to incorporate a few stronger features into the website. The tools and controls used in the application are recommended ASP.NET controls and AJAX Toolkit controls which improves the navigation and usability and interactivity.

**2.2 System Feasibility**

The system feasibility can be divided into the following sections:

**2.2.1 Economic Feasibility**

The project is economically feasible as the only cost involved is having a computer with the minimum requirements mentioned earlier. For the users to access the application, the only cost involved will be in getting access to the Internet.

**2.2.2 Technical Feasibility**

To deploy the website, the only technical aspects needed are mentioned below:

Operating Environment: Windows 7/8/10/11

Platform: VS Code

For Users: Internet Browser , Internet Connection

**2.2.3 Behavioral Feasibility**

The website requires no special technical guidance and all the views available in the application are self explanatory. The users are well guided with warning and failure messages for all the actions taken.

**2.3 Modules of system**

Following are all the modules designed for the Online Shopping System.

**2.3.1 Shop Products Module**

This module starts when the user visits the home page or when a user searches for a product by entering a search term. This part of the website includes displaying all the products that are available or the products that match the search term entered by the user. The user can then filter these products based on various parameters like manufacturer, product type, operating system supported or a price range. The user browse through the products and each product would be displayed with an image and its features like operating system supported, number of user licenses and if it is a full version or an upgrade version. A user can add a product to the cart either by dragging the product and dropping it in the cart or by clicking a button. The user would be able to see the shopping cart summary.

**2.3.2 Product Description Module**

This module starts when a user visits the product description page. A user can view various images of the product of different sizes. The use can see an enlarged image in a popup window. The user can view the complete specification of the product like its features, operating system supported, system requirements etc. A user can also view the manufacturer information and also information about rebates, exchange policies etc. A user can also view the reviews of the product. A user can also write a review for the product.

**2.3.3 Shopping Cart Module**

This module starts when the user views the shopping cart. All the products that have been added to the shopping cart by the user are listed along with their price and the quantity. The total price of all the products added to cart is displayed. A user can edit the quantity of each product or remove the product from the shopping cart. A user can remove the product from the cart by clicking a button or by dragging the product and dropping it outside the cart. The total price changes accordingly when a user edits the quantity of a product or when a product is removed from the cart.

**2.4 Selection of Hardware and Software**

**2.4.1 Hardware Specification**

Processor RYZEN 5/7/9, INTEL i3/i5/i7/i9

RAM 250 MB

Display 16 bit colour

**2.4.2 Software Specification**

Operating Environment Windows 7/8/10/11

Platform Visual Studio Code