



**Department of Electrical
& Computer Engineering**
Faculty of Engineering & Architectural Science

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Assignment/Lab Number:	Lab 2
Assignment/Lab Title:	Lab 2 Part 1: Project Specification

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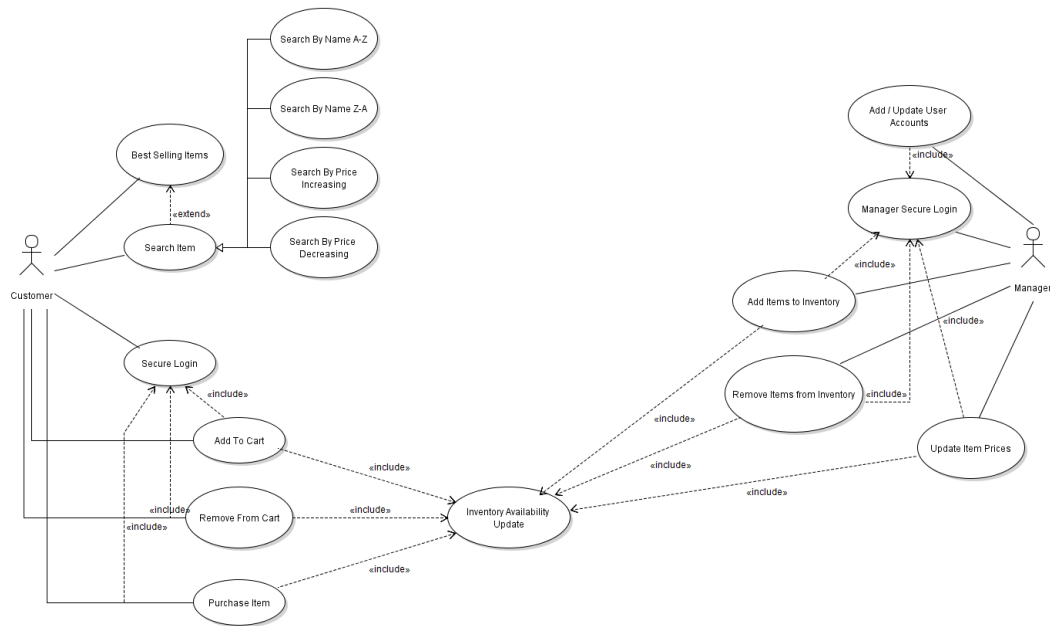
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COE692 Lab 2 Part 1: Project Specification

Description of Project:

For our project, we have decided to make an online grocery store application that allows customers to purchase different premium grocery items. The user must register in order to use the store and its premium offers. In order for a user to register, they must create select a username, password, and must share some private details such as their first and last name. They can then proceed to use their username and password to securely log in to their account. If a customer is having trouble with their login they are able to reset their password. The customer will receive an email with a link that they can use in order to change their password. If a customer has forgotten their username they can either of the following: click on the forgot password button and type in their email to receive their username if an account with the email submitted exists, or they can go to the support page to request a manager who can help them recover their login credentials. Once a customer has logged in they will be able to see a premium selection of goods at excellent prices. The customers can click on the add to cart button in order to add the item to their cart, so they do not have to purchase the items separately. After picking out their items they are able to purchase the items by clicking on the purchase button. They can use either PayPal, VISA, or MasterCard in order to pay the items. Whenever the stock of items gets below a certain threshold, they will be restocked to ensure that customers are able to buy their items. Customers are also able to leave reviews on items that they have purchased. Managers are given access to an admin account that gives them access to many admin features such as customer account details, inventory control panel, discounted prices on items. Whenever a customer requests technical support, managers will receive a notification and then proceed to help the customer. If there are any discrepancies in the inventory numbers then managers are able to manually update, delete and remove items if need be from the store. Since managers work extremely hard in order to keep the store running they are compensated with a discount on items that they will purchase from the store. If a manager has trouble logging in then they can contact an owner in order for them to log in.

Use-Case Diagram: (Might need to edit)



Description of Use-Cases:

Search Item: This use case allows the user to search for the item of their choice. When searching for said item, the user is able to filter their search results in various ways such as in listing the items in alphabetical order or in reverse alphabetical order, filtering by a list of best-seller items, and lastly filtering the items in descending/ascending order by price.

Best Selling Items: This use case refers to the first search result filter option. This option allows the user to filter out their search result items such that only the best-selling items are displayed on the page.

Search by Name A-Z: This use case refers to another available filtering option for the search results. This option lists out the results in alphabetical order.

Search by Name Z-A: This use case refers to another available filtering option for the search results. This option lists out the results in reverse alphabetical order.

Search by Increasing Price: This use case refers to another available filtering option for the search results. This option lists out the results in ascending order by price.

Search by Decreasing Price: This use case refers to another available filtering option for the search results. This option lists out the results in descending order by price.

Secure Login: This use case refers to the login function of our application. There are two types of user accounts for this case. There is a customer account and a manager account. The user must sign in to a customer account in order to add various items to their shopping cart and purchase them. If the user is the store manager and signs into the site with a manager account, they can add various items up for sale on their site and manage customer accounts as well. If either user enters the wrong login credentials, the site will prompt the user to re-enter the correct login credentials in order to access the website's dashboard.

Purchase Item: This use case refers to the transaction process involved in purchasing a grocery item from the website. First, the user logs into the website with a customer account. Then the user searches for the item that they want to purchase. Once they find said item, the user must add it to their shopping cart. They keep doing this until they added all the items that they wanted to purchase. After doing so, the user would proceed to checkout, select their payment method (i.e., Debit or Credit), enter their payment information and complete their item purchase transaction.

Manager Secure Login: The manager can log in with admin privileges to perform administrative duties.

Add Items to Inventory: The manager is able to add items to the inventory in order to sell them. This can be done from the Managers' Secure login.

Remove Items to Inventory: The manager is able to remove items from the inventory in case of recalls, low selling rates, etc. This can be done from the Managers' Secure login.

Update Item Prices: The manager can change prices for items in the inventory for sales, inflation, etc. This can be done from the Managers' Secure login.

Add to Cart: Users can add an item to their cart. Doing so will update the inventory on the total items left.

Remove from Cart: Users can remove an item from the current should they change their minds. Doing so will update the inventory on the total items left.

Inventory Availability Update: Serves as a checkpoint for both the User and the Manager.

When the user updates their cart, the request will pass through it to update how much of the item is left in the inventory. If an item is added to a user's cart then the update will decrease the number of stock by one for the item added. If an item is removed from the user's cart then the update will increase the number of stock by one for the item removed. If an item is added to the inventory then customers will be able to see the items. If an item is removed from the inventory then customers will not be able to see the items.