Plan for Supermarket Checkout

# Brief

The request is to build a demonstration project of a checkout system for a supermarket. It shall demonstrate how offers can be placed on products and that the lowest price will be calculated for the customer. For this example, there will be 5 products, each with a unique SKU and 5 offers. The details of these are as follows:

|  |  |  |
| --- | --- | --- |
| Item | Unit Price | Special Price |
| A | 50 | 3 for 130 |
| B | 30 | 2 for 45 |
| C | 20 | 2 for 38  3 for 50 |
| D | 15 | 5 if purchased with an ‘A’ |
| E | 5 |  |

This is a proof of concept for the PHP work, so the front end functionality will be limited to demonstration purposes only.

# Scope

There will be a simple user interface to show the items that can be purchased and the option to input a number of how many of this option they would like to buy. There will be database tables that store the pricing and the offers. This is for expandability when the supermarket has more items and offers.

# Use Cases

|  |  |  |
| --- | --- | --- |
| **Use Case 1** | | The user can add products that have no discounts applied |
| Precondition | 1 | N/A |
| Actors | | The user that requires the price |
| Basic Flow | 1 | The user adds 1 for the following SKU’s: A,B,C and E. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 1 of each |
| Alternative Flow | 1 | The user adds 5 for SKU D. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 5 D’s. |
| **Use Case 2** | | There will be a discount applied |
| Precondition | 1 | Discounts have been set |
| Actors | | The user that requires the price |
| Basic Flow | 1 | The user adds 3 of SKU A. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 3 with the discount applied: 130. |
| Alternative Flow | 1 | The user adds 2 for SKU B. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 2 with the discount applied: 45. |
| Alternative Flow | 1 | The user adds 2 for SKU C. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 2 with the discount applied: 38. |
| Alternative Flow | 1 | The user adds 3 for SKU C. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 2 with the discount applied: 50. |
| Alternative Flow | 1 | The user adds 1 for SKU A and 1 for SKU D. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 2 with the discount applied: 55. |
| Alternative Flow | 1 | The user adds 1 for SKU A and 2 for SKU D. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 2 with the discount applied: 70. |
| Alternative Flow | 1 | The user adds 5 for SKU C. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 5 with 2 discounts applied: 2 for 38 + 3 for 50 |
| Alternative Flow | 1 | The user adds 4 for SKU C. |
| 2 | The user presses “Generate Price” |
| 3 | The user is displayed the price for the total of 4 with 1 discount applied: 3 for 50 + 1 for 20 |

# Deliverables

|  |  |  |
| --- | --- | --- |
| **ID** | **Name** | **Comments** |
| 1 | Supermarket form | For this demonstration, the deliverable will be relatively basic. It will be a form where the user can select which items they want to purchase, a number input field for each item and a button to generate the price. |

# Design

# Taking Development Further

* A mechanism to change the offers should they differ at a later date.
* A mechanism to add new products to the system and to change the details for the existing products
* Develop the user interface so it is easier and more appealing for the user

# NOTES ON HOW I WOULD TAKE THIS PLAN FURTHER IF IN A REAL PROJECT PLAN:

* Add a task breakdown, linked to the tickets for developers. This would include an estimation of time period for each and therefore the whole project.
* Add a workflow for the tasks so it can be seen what can be done in parallel and what needs to be sequential