

**WORKSHOP – 8 (APS145 GROUP 6) [ SELF – CHECKOUT ]**  
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**LOGIC 2 – PSEUDOCODE LOGIC**

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Logic-2 (SelfCheckout)

- Describes the White Box process for checking out a perishable item (not taxed)
- Exactly HOW should this process work?
- Need to provide the customer a way to locate the matching item in the product database – -----  
HOW exactly should this work?
- Remember, a product will be 1 of the following cases:
  - By-weight (price is determined based on cost/weight)
  - By-quantity (price is determined based on unit cost)
- Available Black Boxes
  - Weigh Item (scale)
  - Fetch Products by Category
  - Data lookup for product info.

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**STEP - 1 : START OF THE PROCESS (PROGRAM).**

**STEP - 2 :** Customer takes his/ her bag to the Self-Checkout Machine and puts the shopping bag on the table besides the machine.

( Here, it is assumed that the customer had shopped for PerishableItems such as Apples, Peaches, Bananas which needs the weight of the Product. Also, items liked Cauliflower, Peppers, Broccoli which needs the quantity of the product to be input by the user onto the system ).

**STEP – 3 :** All of the sudden, when the customer interacts with the check-out machine, the system initiates the White process called – “PerishableItems”.

**STEP – 4 : (i.)** If the product chose by the customer is any fruit (Apples, Peaches and Bananas) or anything, whose billing is associated with its weight then :

- The required product, is placed on the weighing scale, the weight is noted and saved onto a variable called – “Weigh\_Item”, onto the system.
- After that suddenly, a Black Sub-process is called named – “FetchProductsbyCategory”, ( the process called, will help the system to match the product, the cutomer chose with the system’s database by using some of the special characteristics associated with the product which will help the system to categorize the product such as - the color of the product, the productcode of the product ).
- To further help the system to locate the product onto the database, another Black Sub – Process will be called – “dataLookupProd” ( which will provide more information regarding the product, stored in the database, to the user and also helps the system to match the product chose by the user with the system’s database, it

will work on the basis of SuppliersCode of the Product and the ProductCode associated with the product, the system will match that number with the number stored for that specific product in the database ).

- After that moment, another Black Sub-process is called named – WeighItemScale ( Basically, it takes the value of the weight of the item, which has been stored in the variable called “Weigh\_Item” and processes it into its logic.  
→ [ Logic used –  $\text{netAmount} = \text{Weigh\_Item} * \text{unitPriceoftheproduct};$  ]
- After the process of execution into the Black Sub-process, an output is generated after the end of the process execution, which turns out to be the net amount of the product purchased.

(ii.) Else the product chose by the customer is any vegetable or groceries (Peppers, Broccoli and Cauliflower) or anything, whose billing is associated with its quantity rather than its weight then :

- The required product are placed on the machine, then the machine prompts the user to enter the quantity of that specific product onto the system, to evaluate and finalize the net amount for that product.
- The input has been stored onto the variable called – “quantityProduct”.
- After user inputs the quantity of the product then suddenly, a Black Sub-process is called named – “FetchProductsbyCategory”, ( the process called, will help the system to match the product, the customer chose with the system’s database by using some of the special characteristics associated with the product which will help the system to categorize the product - such as the color of the product, the productcode of the product ).
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- After all of these, a logic will be processed in the white box called – PerishableItems, which will calculate the net amount of the product.  
[ Logic used –  $\text{netAmount} = \text{quantity\_Product} * \text{unitPriceoftheproduct}$  ]
- Afterwards, the output generated, after the end of the process execution, will be prompted and used for the receipt which will turn out to be the netAmount of the product chose by the customer.

**STEP – 5 :** At the end of the process of the White Box, a receipt is generated where the netAmount is mentioned of all the products purchased, ***without any tax***, and the payment has been done, while checking out the customer.

**STEP – 6 :** END/ TERMINATION OF THE PROCESS (PROGRAM).