PROGRAM DESIGN METHODS

LAPTOP SHOP PROGRAM

Bayu, Carmen, Darryl, Ian, Kimberly, Sandrian

PROBLEM STATEMENT TABLE

PROGRAM GOAL	To compute the total cost for a specified quantity of laptops based on the desired brand
INPUT	Brand of laptop → string Quantity of purchase → positive integer
OUTPUT	Total price → positive number Remaining stock → positive integer
PROCESS	The total cost is computed by multiplying the price per unit based on the inputted brand by the quantity of purchase inputted by the user.
ERROR HANDLING	- If the brand that has been inputted has 0 stock, the program will force the user to re-enter a brand that has available stock. - The quantity of purchase must be a positive integer and must not be greater than the stock number, otherwise the user will have to input it.

FLOWCHART & PSEUDOCODE

1. **INPUT**
   Asks the user for a brand of laptop
   Asks the user for quantity of purchase

2. **DECISION**
   Is brand available in stock
   - **Yes** → proceed to calculation
   - **No** → tell the user that this brand is out of stock, ask to re-pick brand

   Is the quantity of purchase greater than the stock
   - **Yes** → tells user that the stock is not enough, ask to re-pick brand or re-enter stock amount
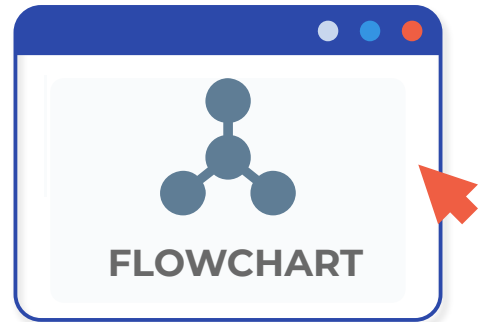   - **No** → proceed to calculation

3. **PROCESS**
   Total purchase = price per unit * quantity of purchase
   - Stock is reduced

4. **OUTPUT**
   - Total quantity and total price
   - Remaining stock

FLOWCHART

TESTING PLAN

TESTING PLAN	BRAND INPUT	QUANTITY INPUT	OUTPUT	NOTES
01	Apple	3	Error message / ask user to re-enter brand	Handling error for brands that are not being sold
02	Dell	15	Error message / ask user to re-enter stock number	Handling error for when quantity entered is too high
03	Dell	2	**Brand Price Quantity** Dell $500 2 Total price: $1000.00	Testing positive input
04	Hp	-1	Error message / ask user to re-enter stock number	Handling error for non positive numbers.
05	Lenovo	1.5	Error message / ask user to re-enter stock number	Handling error for non integers

PYTHON CODE DEMONSTRATION

Uploaded on GitHub

ProgramDesignProject-LaptopShop

Group Project for Program Design Course

Members

- Bayu Hartho (2502013731)
- Carmen Cleosa (2502009601)
- Darryl Hilmy (2502009652)
- Ian Wirawan (2502009596)
- Kimberly Mazel (2502022250)
- Sandrian Wardana (2502016411)

THANK YOU FOR YOUR TIME