Instruction

a) **Each group should have members between 2 to 4 students only.**

b) **Due Date for project submission is on Friday 19/1/2024 before 5pm.**

c) **You have to apply all the concept listed below in your project**:

No	Techniques	Optional / Mandatory
1	Selection	**Mandatory**
2	Repetition	**Mandatory**
3	Function	**Mandatory**
4	Array	**Mandatory**
6	File Input/Output	**Mandatory** DONE
7	Struct	**Mandatory** DONE
8	Pointer	**Optional**

pseudocode flowchart

d) **Your project will be evaluated based on problem solving analysis, algorithm, programming techniques used, program's functionality, and cooperation in group.**

must run according to page 3 github

e) **Submitting project is by submission of project report & .cpp file in ULearn (please submit in Assessment folder – only one member does the submission); and group project presentation (15/1/2024 – 19/1/2024).**

f) **Project report (softcopy) must be submitted on the due date, which consists of:**

i. **Cover Page**
   - **UTeM Logo & FTMK Logo**
   - **Course Code**
   - **Course Name**
   - **Project Title**
   - **Lecturer Name**
   - **Date of Submission**
   - **Group Members (Fullname & Matric Number)**

ii. **Project Summary**
iii. **Task division between group members in detail.**
iv. **Flowchart or Pseudocode**
v. **Program's code**
vi. **Program's output (print screen)**
vii. **Conclusion**

CASE STUDY

Write a program that stimulates a soft drink machine. The program the following data:

```
Drink Name
Drink Cost
Quantity of drinks
```

This program should be initialized with the following data:

Drink Name	Cost (cents)	Quantity
Cola	1.50	10
Root Beer	1.50	10
Lemon-Lime	1.50	10
Strawberry	1.50	10
Mountain Dew	1.50	10
Mirinda Orange	1.50	10
Pepsi	1.50	10
Lemon Tea	2.00	10
Grape Soda	2.00	10
Ice Cream Soda	2.00	10
Milo	2.00	10
Apple Juice	2.50	10
Orange Juice	2.50	10
Guava Juice	2.50	10

14 items in total

Each time the program runs, it should enter a loop that performs the following steps:

- A list of drinks and the price for each drink are displayed on the screen.
- The user should be allowed to either cancel selecting a drink or picking a drink.
- If the user selects a drink, he or she will next enter the amount of money that is to be inserted into the drink machine.
- The program should display the amount of change that would be returned and subtract one from the number of that drink left in the machine.
- If the user selects a drink that has sold out, a message should be displayed. The loop then repeats.

IN MAIN PROGRAM SEQUENCE

This soft drink machine does not accept any negative values of values greater than 3.00 when the user enters the amount of money.

Whenever the vendor restocks the drinks in the soft drink machine, the vendor will quit the program and it should display the total amount of money the machine earned. The machine will also display the quantity of each drink name that has not been sold yet. Upon starting the program again, the sales amount of the machine will be reset to 0 again and will display total number of drinks available in the soft drink machine for each drink name.

IN REPORT FILE

Each time the vendor restocks the drink, the total amount of money the machine earned, the quantity of each drink that is not sold and the quantity of each drink that is being restock will be written to an output file.

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