

Date Released:

Friday, February 2, 2024

Due Date:

Friday, February 2, 2024 11:59 pm

Coding Assignment - V

Read the Instructions Carefully

“Ataa Gob3” is one of the most popular food joints around Engineering gate. Most students go there to enjoy their delicious “gob3”. The common food combination used by students is beans & gari (BG), ripe plantain (RP), plain rice (PR), and an egg.

Sister Ataa, the owner of the food joint, wants to know how much sales she’s expected to make within the week (Monday – Friday) if she decides to offer a discount of 5.5% on any food bought. Table 1 shows the average number of students who visit her food joint on a daily basis and the combinations used.

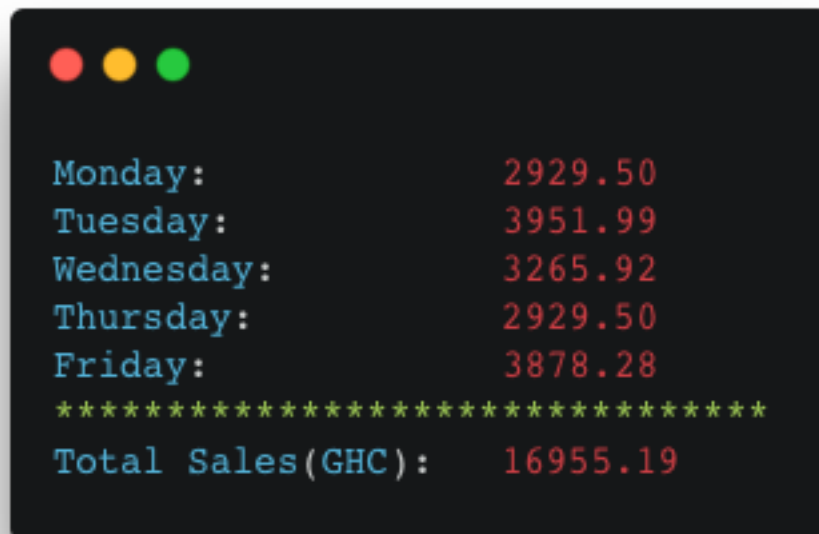
As an engineering student, you are required to help Sister Ataa by writing a simple computer program to give her an idea of how much she is expected to make within the week.

Table 1: Average number of students who visit the food joint within the week and the combinations used.

| Day | BG (GHC) | RP (GHC) | PR (GHC) | Average Number of Students |
|-----------|-------------|-------------|-------------|-------------------------------|
| Monday | 2 | 1 | 2 | 500 |
| Tuesday | 3 | 2 | 2 | 510 |
| Wednesday | 2.5 | 2 | 1.5 | 480 |
| Thursday | 1.5 | 2 | 1.5 | 500 |
| Friday | 2 | 2 | 2 | 570 |

Coding Specifications:

1. Define a global constant for the discount value and also the price of an egg (which is GHC 1.2).
2. Implement a subroutine/function called **calculateFoodPrice** that takes the food combinations as inputs and returns the payable amount. Do not pass already defined global constants as input to this subroutine.
3. Your program should work as shown in the figure below. All computed operations should be formatted to 2 decimal places (2 dp).
4. Plot a bar graph to show the average number of students who visit the food joint within the week. Label your axis and also add a title for the figure. The x-axis should show the days of the week for each corresponding number of students.



```
Monday:                2929.50
Tuesday:               3951.99
Wednesday:            3265.92
Thursday:              2929.50
Friday:                3878.28
*****
Total Sales(GHC):      16955.19
```

How to upload your code

1. Click [here](#) to upload your assignment.
2. All your `.m` files should be zipped and named `firstname_indexnumber`. Example `justice_181211.zip`
3. Failure to use the correct format in naming your file will lead to your code not being graded.