

SUNDAY 10th-4-2022

Question 1

Tirupati stationery store sells items in bulk at a discount to its customers. Customers can order from a small range of items available on that day. The greater the quantity of an item they buy in one order, the greater the discount for that item.

Quantity of an item	Discount
10	5%
20	10%
50	25%
100	35%
500	50%

In addition to this, new customers can use a Ugx 10,000 voucher, provided their order comes to more than Ugx 500,000. Also, returning customers are given a discount voucher with a monetary value.

Write and test a GUI program or programs for Tirupati stationery store. Include the following in your work

- Error messages and other output need to be set out clearly and understandably.
- All variables, constants and other identifiers must have meaningful names.
- Using arrays, set up a list of at least 10 different items available that day. For every item include: item code, description, price and the amount in stock. All item codes must be different. Display the item code, description, price and the amount in stock on the screen.
- Items should be displayed using Radio Buttons

Question 2

A user is asked to input two numbers, then the program should check which of the two is furthest from another number input too.

Required:

Write a GUI program to allow a user enter two numbers using text fields then also allow entering the third number. The program should then display which of the first two numbers is furthest from the third number using a new none sizeable Window. Put in mind negative numbers too

Question 3

A car salesman is promoting two vehicles. The customer is trying to make the best decision according to the information received from the salesman.

Car A consumes 2 liters per kilometer covered. When the car covers 800 meters, it must be serviced at 5000 shs

Car B consumes 3 liters per kilometer covered. When the car covers 1000 meters, it must be serviced at 4000 shs

Assuming the two cars use the same type of fuel, if the customer covers an average of 2000 meters. Write a java program that recommends either A or B depending on the cost incurred.

Question 5

A computer shop will build a computer from components to meet a customer's requirements. For each request for a computer to be built, an estimate of the cost is produced. The component stock level is checked; if all the components are in stock, a firm order to build the computer can be placed. A program is required to work out the cost of the computer, update the stock levels and provide a daily summary of orders for the shop owner.

Write and test a GUI program or programs for the computer shop owner.

- Your program or programs must include appropriate prompts for the entry of data.
- Error messages and other output need to be set out clearly and understandably.
- All variables, constants and other identifiers must have meaningful names.

Write a java program to calculate the cost of building a computer using these components.

Component	Choices	Prices in \$
Processor	p3 / p5 / p7	100 / 120 / 200
RAM	16 GB / 32GB	75 / 150
Storage	1 TB / 2TB	50 / 100
Screen	19" / 23"	65 / 120
Case	Mini Tower / Midi Tower	40 / 70
USB ports	2 ports / 4 ports	10 / 20

The customer makes a choice for each component and an estimate is produced. The estimate must show a unique estimate number, the components chosen and the price of each component. The estimate must also show the total cost of the computer, which is calculated as the sum of the cost of the components chosen plus 20%. Use Check boxes for the items