Department of Statistics & Computer Science
University of Kelaniya
Academic Year 2022/2023
COSC 21063/ BECS 21223
Data Structures and Algorithms
Lab Sheet 08

01) The following table contains the sales information of the UBuy online store for last Friday.

Product ID	Product Name	Category	Unit Price (Rs.)	Quantity Sold on Friday
P108	Wireless Mouse	Electronics	2,160	30
P034	Handbag	Accessories	3,450	5
P078	Phone cover	Accessories	1,750	26
P105	Bluetooth Speaker	Electronics	13,780	5
P003	Ladies blouse	Clothing	1,650	18
P053	Shampoo	Groceries	2,370	20
P114	Laptop	Electronics	250,000	3
P004	Frock	Clothing	4,520	10
P117	Earphone	Electronics	7,860	2
P120	Microwave oven	Electronics	56,830	15

a) Using contiguous list data structure input above sales details.

b) Calculate the sales amount of each product on last Friday and display them.

c) Sort the sales details according to the sales amount of each product using selection sort and display them.

d) There is a mistake in the quantity sold in frocks. It should be corrected as 49. Make the correction and display the updated list of products with their sales amount.

e) Find and display the products whose total sale amount is greater than Rs. 40,000.

f) Identify products that belong to the Electronics category and calculate the sales amount received from electronics category.

g) Calculate the percentage of sale amount of electronic category relative to the total sale amount of all categories.