

Roll No: \_\_\_\_\_

Register No: \_\_\_\_\_

**SET – A**

1. Create a Kotlin program where Rahul travels to the below Metropolitan cities once, such as Hyderabad, Chennai, Mumbai, Kolkata, Bengaluru and count the frequency of characters in each city

**Constraint:**

1. Create an Array Size of 5
2. For each city identify at least 2-character frequency

**Input:**

5

Hyderabad, Chennai, Mumbai, Kolkata, Bengaluru

**Sample Output:**

Hyderabad

Frequency of d – 2

Frequency of H – 1

Chennai

Frequency of n – 2

Frequency of h – 1

Mumbai

Frequency of m – 2

Frequency of i - 1

Kolkatta

Frequency of k – 2

Frequency of l – 1

Bengaluru

Frequency of u – 2

Frequency of a – 1

2. Priya is interested in drawing and she uses kotlin program to print CSE in the below form with the help of symbols

**Constraint:**

1. Use only symbols for printing CSE
2. Each and every character should be in different symbols

**Input:**

CSE

**Output:**

\* \* \* \* \* ! ! ! ! ! ^ ^ ^ ^ ^

\* ! ^

\* ! ^

\* ! ! ! ! ! ^ ^ ^ ^ ^

\* ! ^

\* ! ^

\* \* \* \* \* ! ! ! ! ! ^ ^ ^ ^ ^

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SET-B

1. Alice went for shopping and bought eight goods costing different prices. At the time of billing she realizes that she did not have enough money. Now, she has decided to remove the item costing maximum amount and replace it with another item whose price is same as the item costing minimum amount. Help Alice and display final prices on the screen.

Note: if more than one element cost maximum price, replace the first item.

Example 1:

Input: 250 1000 50 20 10 100 200 25

Output: 250 10 50 20 10 100 200 25

Example 2:

Input: 2500 2500 50 20 10 100 200 25

Output: 10 2500 50 20 10 100 200 25

Sample case 1:

Input: 250 100 500 1000 10 20 30 5

Output: 250 100 500 5 10 20 30 5

Sample case 2:

Input: 250 250 250 250 250 250 250 250

Output: 250 250 250 250 250 250 250 250

2. Alice added 5 items to his shopping cart and is now prepared to checkout at the mall. Write a program code to assist him in finding the total money he needs to pay considering that every element costing more than 100 is being sold at 20% discount.

Test cases:

Input: 250, 100, 50,50,50

Output: 450

Input: 100,100,200,10,10.50

Output: 380.50

Input: 250.50, 100, 50,50,50.50

Output: 450.90

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**SET C**

1. Radha asked her friend to prepare one application to check the given number is palindrome or not .

Sample 1:

Input: 121

Output: palindrome

Sample 2:

Input: 123

Output: not palindrome

2. Gopal informed his friend that he had design one application where you can pass any character and you will get information that given character is alphabet or not

Sample 1:

Input: t

Output: alphabet

Sample 2:

Input: &

Output: not alphabet