Mini Java Applications

1. Develop a **Java application to generate Electricity Bill.**

Create a class with the following members:

Consumer no., consumer name, previous month reading,

current month reading, type of EB connection (i.e domestic or commercial).

Compute the bill amount using the following tariff.

If the type of the EB connection is domestic, calculate the amount to be paid as

follows:

🕐 First 100 units - Rs. 1 per unit

🕐 101-200 units - Rs. 2.50 per unit

🕐 201 -500 units - Rs. 4 per unit

🕐 If > 501 units - Rs. 6 per unit

If the type of the EB connection is commercial, calculate the amount to be paid as

follows:

🕐 First 100 units - Rs. 2 per unit

🕐 101-200 units - Rs. 4.50 per unit

🕐 201 -500 units - Rs. 6 per unit

🕐 If> 501 units - Rs. 7 per unit

2. Develop a java application to implement

Currency Converter (Dollar to INR, EURO to

INR, Yen to INR and vice versa), **Distance Converter** (meter to KM, miles to KM

and vice

versa), **Time Converter** (hours to minutes, seconds and vice versa).Use your own required input values for conversion.

3. Develop an Application to Check whether **Given Numbers are Consecutive or Not**

Given a valid Set of Numbers , check whether the given number are consecutive or not

This Application contains a class CheckingForConsecutiveNumbersApp with the following methods:

Method1:

+readInput() : void

-Should accept inputs from the console

-Should call inputValidator method with given input

Method2:

+inputValidator(ArrayofNos) : void

-Should call checkForConsecutive method passing ArrayofNos as parameter

-Should print "Given numbers are Consecutive" if given numbers are Consecutive

-Should print "Given numbers are not Consecutive" if given numbers are not Consecutive

-Should call method checkForConsecutive method

   Method3:

  +checkForConsecutive(ArrayofNos) : boolean

   -Should get String as input and return result as boolean

   -Should check given numbers are consecutive or not

Example

   Sample Input:

   2,3,6,5,4,1

   Expected Output:

   Given numbers are Consecutive

   Sample Input:

   -2,-1,-4,-5,-3

   Expected Output:

   Given numbers are Consecutive

Sample Input:

2,4,5,7,9,8

Expected Output:

Given numbers are not Consecutive

4. Develop an Application to **Create an Array and Search elements in the Array**

Complete the class `FruitsArrayService` as per the below requirement

- Define the below static methods in class `FruitsArrayService`:

   Method1:

   +addFruitsToArray(String,String,String) : Array<String>

      - Should take multiple String inputs containing names of fruits (see below), and return a Array of the Fruit names

         "apple" "mango" "Cherry"

      - Should not add duplicate fruits to the Array(Same fruit name in upper/lower/mixed should be also considered duplicates)

   Method2:

   +searchFruitInArray(Array<String>, String) : int

      - Should take a fruit Array and fruit name to be searched as parameters

      - Should return the index of the fruit in the Array, if it's found

      - Should return -1, if the fruit is not found

- Should do a "case-sensitive" search

Method3:

+searchFruitInArrayIgnoreCase(Array<String>, String) : int

  - Should take a fruit Array and fruit name to be searched as parameters

  - Should return the index of the fruit in the Array, if it's found

  - Should return -1, if the fruit is not found

  - Should do a "case-insensitive" search