Exercise 1

Create the following using Lambda and Collection Framework

Create a class called Transaction that contains the following data members

1. txId int

2. txDate LocalDate

3. txAmount float

4. txStatus boolean

5. txArrears boolean

Create 5 objects of the above Transaction object by taking input from the user and store the same in a Collection object.

Create the Lambda expressions for

1. Getting all the Transactions from the Collection where the txAmount is > 5000

2. Getting all the Transactions where the txStatus is false

3. Write a Lambda Function to generate the amount due. The amount due is calculated as the txAmount + Rs. 500/- + 18% of txAmount if the txArrears is true else if txArrears if false then only the txAmount will be returned

Using existing (pre-defined) Functional Interfaces in Java write,

1. Lambda expression to sort a string array in alphabetical order

2. Lambda expression to find the largest number in an integer array.

3. Lambda expression to find the smallest number in an integer array.

4. Lambda expression to generate a 3 digit random number

5. Lambda expression that takes an integer array and returns the reverse integer array

6. Lambda expression to print the current date

7. Lambda expression to evaluate if a number entered is a Prime number

8. Lambda expression to accept 2 strings and return the concatenated value of the same

Exercise 2

Create a Lamda for generating a random OTP which will be formed of 5 chars, the 1st Char should be a vowel followed by 4 random numbers generated from 0-9. eg

A8391, U8665 and so on