**LambdaExpressions**

1. Create an ArrayList a1 and add 25 random numbers.

Write a code to print all the prime numbers that are present in it, using lambda expression.

import java.util.ArrayList;

import java.util.Random;

public class PrimeNumbersUsingLambda {

    public boolean isPrime(int num ){

        if(num<=1)

        return false;

        else{

            for(int i = 2;i<Math.sqrt(num);i++){

                if(num%i==0){

                    return false;

                }

            }

            return true;

        }

    }

    public static void main(String args[]){

        PrimeNumbersUsingLambda obj = new PrimeNumbersUsingLambda();

        ArrayList<Integer> a1 = new ArrayList<>();

        Random rand = new Random();

        for(int i = 0; i< 25;i++){

            a1.add(rand.nextInt(100));

        }

        System.out.println(a1);

        a1.forEach(x -> {

            if(obj.isPrime(x)){

                System.out.println(x);

            }

        });

    } }

**OUTPUT:**

[86, 64, 24, 37, 7, 13, 96, 66, 35, 30, 56, 56, 47, 94, 83, 34, 94, 9, 60, 68, 27, 22, 88, 14, 75]

37

7

13

47

83

9

1. Create an ArrayList a1 and add 10 different words.

Write a code to print all the Strings in reverse order, using lambda expression.

**CODE:**

import java.util.ArrayList;

import java.util.Collections;

public class ReverseStrings {

    public static void main(String args[]){

        ArrayList<String> a1 = new ArrayList<>();

        words.add("Apple");

        words.add("Banana");

        words.add("Cherry");

        words.add("Date");

        words.add("Grapes");

        words.add("Honeydew");

        words.add("Mango");

        words.add("Orange");

        words.add("Guava");

        words.add("Custardapple");

        Collections.reverse(a1);

        words.forEach(x->System.out.println(x));

    }

}

**OUTPUT:**

Custardapple

Guava

Orange

Mango

Honeydew

Grapes

Date

Cherry

Banana

Apple

1. Create an ArrayList a1 and add 10 different words.

Write a code to print all the Strings whose length is odd, using lambda expression.

**CODE:**

import java.util.ArrayList;

public class OddLengthWords {

    public static void main(String args[]){

        ArrayList<String> words = new ArrayList<>();

        words.add("Apple");

        words.add("Banana");

        words.add("Cherry");

        words.add("Date");

        words.add("Grape");

        words.forEach(x->{

            if(x.length()%2!=0){

                System.out.println(x);

            }

        });

    }

}

**OUTPUT:**

Apple

Grape

1. Create an interface WordCount with a single abstract method int count(String str), to count and return the no of words in the given String.

Implement count method using Lambda expression in another class MyClassWithLambda.

Invoke it to display the result on the console.

**CODE:**

interface WordCount {

    abstract int count(String str);

}

public class MyClassWithLambda {

    public static void display(String input, WordCount wc) {

        int wordCount = wc.count(input);

        System.out.println("Input: " + input);

        System.out.println("Total number of words: " + wordCount);

    }

    public static void main(String[] args) {

        WordCount wc = (String str) -> str.trim().isEmpty() ? 0 : str.trim().split("\\s+").length;

        String input = "Learning from Wipro training";

        display(input, wc);

    }

}

**OUTPUT:**

Input: Learning from Wipro training

Total number of words: 4