11. Program to show Streams basics in java.

Objective: To learn Streams basics in java.

Description and Code: Create a java file and save it as Program11.java and put following code into this file: -

```
// Write a program to show Streams basics in java.

// Program for stream in java

import java.util.*;

import java.util.stream.*;

class Program11

{

public static void main(String args[])

{

        //list of integers Creation

        List<Integer> number = Arrays.asList(3,1,7,2);



        //map method

        List<Integer> square = number.stream().map(x -> x*x).

                                                collect(Collectors.toList());

        System.out.println(square);



//System.out.println('\n');
```

```
        //list of String creation
        List<String> names =
                                Arrays.asList("Area","of","circle");

        // Use of filter method
        List<String> result = names.stream().filter(s->s.startsWith("c")).
                                                collect(Collectors.toList());
        System.out.println(result);

//System.out.println('\n');

        // Use of sorted method
        List<String> show =
                        names.stream().sorted().collect(Collectors.toList());
        System.out.println(show);

        //System.out.println('\n');

        // list of integers creation
        List<Integer> numbers = Arrays.asList(4,3,7,1,2);
```

```
//System.out.println('\n');

        // Use of forEach method
        number.stream().map(x->x*x).forEach(y->System.out.println(y));

//      System.out.println('\n');

        // Use of reduce method
        int odd =
        number.stream().filter(x->x%2==1).reduce(0,(total,k)-> total+k);

        System.out.println("Total of odd values is: "+odd);
}
}
```

Expected Output:

[9, 1, 49, 4]

[circle]

[Area, circle, of]

9

1

49

4

Total of odd values is: 11