

# Exercise

1) Write the following a functional interface and implement it using lambda:

(1) First number is greater than second number or not Parameter (int ,int ) Return boolean

(2) Increment the number by 1 and return incremented value Parameter (int) Return int

(3) Concatination of 2 string Parameter (String , String ) Return (String)

(4) Convert a string to uppercage and return . Parameter (String) Return (String)

```
Enter Two numbers to compare :  
1  
6  
First is greater : false  
Enter a number to increment :  
5  
6  
Enter Two strings to concatenate :  
yatin  
ajmani  
yatinajmani  
Enter a string to convert to uppercage :  
yatin  
YATTIN
```

2) Create a functional interface whose method takes 2 integers and return one integer.

```
Enter Two numbers to add :  
12  
5  
17
```

```
Program finished with exit code 0
```

- 3) Using (instance) Method reference create and apply add and subtract method and using (Static) Method reference create and apply multiplication method for the functional interface created.

```
Enter two numbers :  
6  
7  
Addition 13  
Difference -1  
Product 42
```

- 4) Create an Employee Class with instance variables (String) name, (Integer)age, (String)city and get the instance of the Class using constructor reference

```
Enter name :  
yatin  
Enter age :  
24  
Enter city :  
Delhi  
Employee{name='yatin', age=24, city='Delhi'}
```

- 5) Implement following functional interfaces from java.util.function using lambdas:

(1) Consumer

(2) Supplier

(3) Predicate

(4) Function

```
Using Consumer :  
1  
2  
3  
Using Supplier :  
1 : 747f7125-6fd1-47de-aadd-37d736b0927b  
2 : e224e4c4-981a-4a70-b478-7f38170faea4  
3 : 4eaec877-7b05-4196-85f0-53d805a656bb  
Using Predicate :  
1  
2  
3  
Using Function :  
2  
4  
6
```

- 6) Create and access default and static method of an interface.

```
Enter a string :  
yatin ajmani  
Generated Slug using static method : yatin-ajmani  
Unique Token : using default method88aef577-0f54-43f7-a232-3da4b3aae533
```

- 7) Override the default method of the interface.

```
Custom Unique Token using default method : 19f59dc4_5635_4ffd_9d28_757af246ab2f
```

- 8) Implement multiple inheritance with default method inside interface.

```
Custom Unique Token overriding default method in main class : 7bb4000b.d601.4933.9c97.f4220f9153ca
```

- 9) Collect all the even numbers from an integer list.

```
Even Numbers between 1-10 : [2, 4, 6, 8, 10]
```

- 10) Sum all the numbers greater than 5 in the integer list.

```
Enter a no. (0 to exit).  
6  
Enter a no. (0 to exit).  
8  
Enter a no. (0 to exit).  
4  
Enter a no. (0 to exit).  
0  
Sum : 14
```

- 11) Find average of the number inside integer list after doubling it.

```
Enter a no. (0 to exit).  
10  
Enter a no. (0 to exit).  
20  
Enter a no. (0 to exit).  
30  
Enter a no. (0 to exit).  
0  
Average : 40.0
```

- 12) Find the first even number in the integer list which is greater than 3.

```
Enter a no. (0 to exit).  
5  
Enter a no. (0 to exit).  
6  
Enter a no. (0 to exit).  
2  
Enter a no. (0 to exit).  
0  
Element is : 6
```