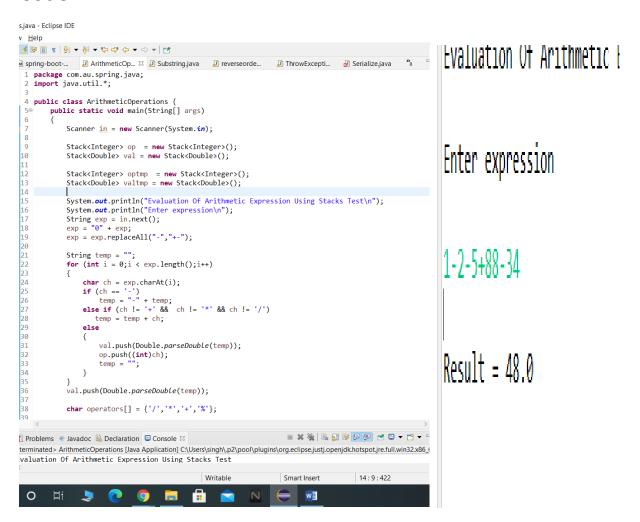
## Java Assignment – Morning Session – Anubhav Singh

### Class Assignment:

Ques 1: Write a java program to print the result of following operations.

- a)-5+8\*6
- b)(55+9)%9
- c)20+-3\*5/8
- d)5+15/3\*2-8%3

#### Code:



Ques 2: Java program to print the American flag

```
ow <u>H</u>elp
🖻 spring-boot-... 📝 Config.java 📝 BlogReposito... 📝 Blogs.java 📝 Test.java 📝 ArithmeticOp... 🔯 🥞
 2 package com.au.spring.java;
  4 public class AmericanFlag {
     public static void main(String[] args) {
           String <u>s1</u> =
           String s2 = "=======
           for (int i = 0; i < 4; i++) {
            System.out.println(s1);
           System.out.println("* * * * * * =======");
           for (int i = 0; i < 6; i++) {
           System.out.println(s2);
 17 }

    Problems @ Javadoc    Declaration    □ Console    □

<terminated> AmericanFlag [Java Application] C:\Users\singh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\b
* * * * * * ______
* * * * * * ______
 * * * * *
* * * * * * ______
* * * * *
* * * * * * ______
```

#### Hands On questions

1: Write a Java program to replace each substring of a given string that matches the given regular expression with the given replacement.

```
ipse IDE
ow Help
🖻 spring-boot-... 📝 Config.java 📝 BlogReposito... 📝 Test.java 📝 ArithmeticOp... 📝 AmericanFlag...
   package com.au.spring.java;
   2 import java.util.*;
   4 public class Substring {
          public static void main(String[] args)
              Scanner in=new Scanner(System.in);
System.out.println("Enter the string");
               String str=in.nextLine();
               System.out.println("Enter the word to be replaced");
               String inp=in.nextLine();
               System.out.println("Enter the word with which to replace");
               String word=in.nextLine();
              String newStr=str.replaceAll(inp,word);
System.out.println("The original string was: "+str);
System.out.println("The replaced string is: "+newStr);
  16
 18
 20
 🔐 Problems 🎯 Javadoc 🖳 Declaration 📮 Console 🛭
<terminated > Substring [Java Application] C:\Users\singh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\ja
Enter the string
 The quick brown fox runs over a lazy dog
Enter the word to be replaced
Enter the word with which to replace
The original string was: The quick brown fox runs over a lazy dog
The replaced string is : The quick red fox runs over a lazy dog
```

# Ques 2: Write a Java program to get a reverse order view of the keys contained in a given map

```
java - Eclipse IDE
dow <u>H</u>elp
P ⊿ № ■ π ! ½ ▼ 취 ▼ ♥ ♥ ♥ ◆ ▼ ○ ▼ | ₫
■ spring-boot-... ② Configjava ② BlogReposito... ② Blogsjava ② SpringBootCo... ② Substringjava ② reverseorde... ◎ "s
     1 package com.au.spring.java;
2 import java.util.*;
       public class reverseorderview {
    public static void main(String[] args) {
        TreeMap<String,String> treemap= new TreeMap<>();
        Scanner in=new Scanner(System.in);
}
                   System.out.println("Enter the number of key->value pairs");
                   int n=in.nextInt():
                   for(int i=0;i<n;i++)</pre>
                        System.out.println("Enter Key");

    Problems @ Javadoc    Declaration    □ Console    □

  <terminated> reverseorderview [Java Application] C.\Users\singh\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre
  Enter the number of key->value pairs
  Enter Key
  Enter Value
  Enter Key
  Enter Value
  Enter Key
  Enter Value
 Breesn
Driginal key Map: {GIT=Biresh, Nishant=Java, Rahul=Javascript}
Reversed key Map: [Rahul, Nishant, GIT]
```

#### Ques 3:

```
Prime.java - Eclipse IDE
ow Help
<terminated > ThrowExceptionOnPrime |

☑ ThrowExcepti... 
☒ 
                                                                                     2 is a Prime Number
  1 package com.au.spring.java;
2 import java.util.*;
                                                                                     3 is a Prime Number
                                                                                     5 is a Prime Number
4 class PrimeException extends Exception{
                                                                                     7 is a Prime Number
                                                                                    11 is a Prime Number
  7 public class ThrowExceptionOnPrime {
         public static boolean isPrime(int n)
                                                                                    13 is a Prime Number
             int flag=0;
                                                                                     17 is a Prime Number
            int i=2;
                                                                                    19 is a Prime Number
             while(i<=n/2)</pre>
                                                                                     23 is a Prime Number
                 if(n%i==0)
                                                                                     29 is a Prime Number
                                                                                     31 is a Prime Number
                 flag=1;
                 break;}
                                                                                     37 is a Prime Number
                 ++i;
                                                                                     41 is a Prime Number
 21
22
23
24
             if(flag==1 || n==1)
                                                                                     43 is a Prime Number
             return false;
else
                                                                                    47 is a Prime Number
                                                                                     53 is a Prime Number
 26
                                                                                     59 is a Prime Number
        public static void main(String[] args) {
             int count=1;
                                                                                     61 is a Prime Number
             while(count<=100) {</pre>
 29
                                                                                     67 is a Prime Number
 30
                 try {
                     if(isPrime(count))
                                                                                     71 is a Prime Number
                        throw new PrimeException();
                                                                                     73 is a Prime Number
 33
                 catch(PrimeException e) {
                                                                                     79 is a Prime Number
                     System.out.println(count+" is a Prime Number");
 36
                                                                                     83 is a Prime Number
 37
                 finally {
                                                                                     89 is a Prime Number
                    count++;
  39
                                                                                     97 is a Prime Number
                                                                   ■ × ¾ | B<sub>4</sub> All B
 🔐 Problems 🏿 Javadoc 🖳 Declaration 📮 Console 🛭
```

Ques 4: Write a programme to serialize 3 fields out of 5 and deserialize it. Use UUID to prevent object mutation.

```
🚭 eclipse-workspace - spring-boot-couchbase-example/src/main/java/SerializeDeserialize.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
[ ☆ ▼ 🖫 🖫 [ ♥ ] ♥ | ♦ | ♦ ▼ 🔘 ▼ 💁 ▼ [ ₩ Ø ▼ ] 🕾 Ø ▼ ] 🕫 📝 🕸 🖫 👚 🕥 ▼ [ № + 🔄 ▼ [ ★ ▼ ] ▼ ] 🛣
■ spring-boot-couchbase-example/pom.xml   ② Config.java   ② BlogRepository.java   ② Blogs.java   ② SpringBootCouchbaseExampleApplica
  1⊖ import java.io.*
  2 import java.util.*;

№ 4 class Data implements Serializable {
           UUID serialversionUID = new UUID(100,10);
           int id;
           int phoneNumber;
           String email;
           String name;
 120
           public Data(int id, String name, String email, int phoneNumber)
 13
14
                this.id = id;
               this.name = name;
this.phoneNumber = phoneNumber;
this.email = email;
 15
 16
 18
           }
 19 }
 20 public class SerializeDeserialize {
         public static void display(Data d){
   System.out.println("ID Data: " + d.id);
   System.out.println("Name Data: " + d.name);
   System.out.println("phoneNumber Data: " + d.phoneNumber);
   System.out.println("email Data: " + d.email);
}
 21⊖
 22
 23
 24
 25
26
           public static void main(String []args){
   Data d1 = new Data[1, "Anubhav Singh", "anubhav.singh@accolitedigital.com", 100);
 28
29
                try {
                    System.out.println("\nSerializing\n");
FileOutputStream file = new FileOutputStream("dataFile.txt");
 30
31
 32
33
                    ObjectOutputStream out = new ObjectOutputStream(file);
                    out.writeObject(d1);
 34
                    out.close();
  35
36
                    file.close();
System.out.println("Data before deserialization:\n ");
 37
                    display(d1);
  38
                catch (Excention e) {
■ Console ≅
eclipse-workspace - spring-boot-couchbase-example/src/main/j
<u>File Edit Source Refactor Navigate Search Project Run W</u>
1 import java.io.*;
2 import java.util.*;
4 class Data implements Serializable {
           UUID serialversionUID = new UUID(100,10);
           int id;
           int phoneNumber;
■ Console ≅
<terminated> SerializeDeserialize [Java Application] C:\Users\singh\
Serializing
Data before deserialization:
ID Data: 1
Name Data: Anubhav Singh
phoneNumber Data: 100
email Data: anubhav.singh@accolitedigital.com
Deserializing
Data after deserialization:
ID Data: 1
Name Data: Anubhav Singh
phoneNumber Data: 100
email Data: anubhav.singh@accolitedigital.com
```