Practical No: 01 write a program to display Hello World message in console window.

```
Main.java
               +
                                                                                              NEW
                                                                                                    JAVA 🗸
                                                                                                            RUN >
1 import java.util.*;
                                                                         STDIN
2 import java.lang.*;
                                                                         Input for the program (Optional)
4- public class Main {
       public static void main(String[] args) {
                                                                        Output:
         System.out.println("Hello, World!");
                                                                        Hello, World!
```

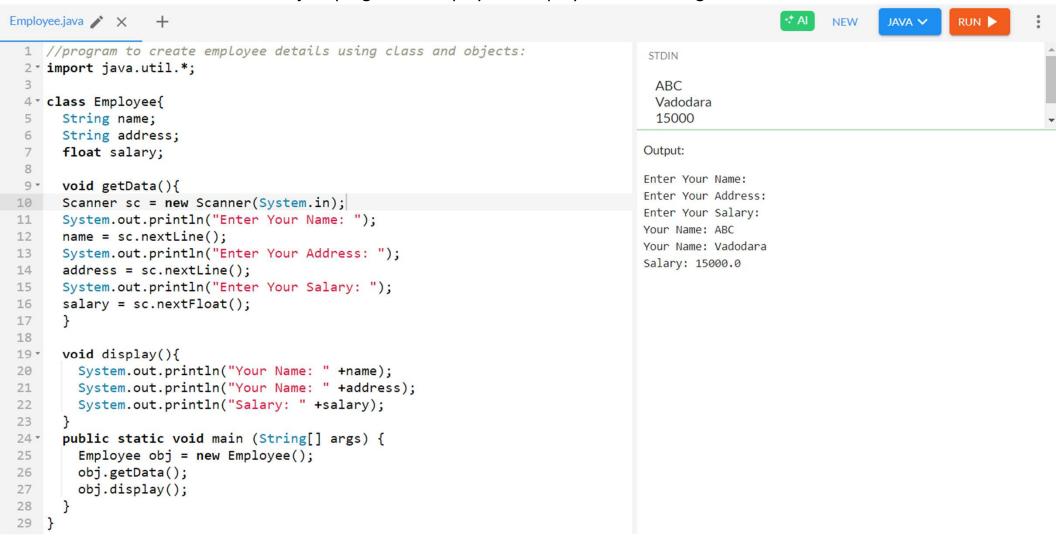
Write a program to perform arithmetic and bitwise operations in a single source program without object creation

```
Arithmetic.java 🧪 🗶
                                                                                                                     NEW
                                                                                                                              JAVA V
  1 * import java.util.*;
                                                                                            STDIN
     import java.lang.*;
                                                                                             13
 4 - public class Arithmetic {
                                                                                             2
         public static void main(String[] args) {
  5 *
  6
           Scanner sc = new Scanner(System.in);
  7
                                                                                           Output:
  8
           System.out.println("Enter Value For A: ");
  9
                                                                                           Enter Value For A:
           int a = sc.nextInt();
 10
                                                                                           Enter Value For B:
 11
                                                                                           Sum Of Two Value: 15
 12
           System.out.println("Enter Value For B: ");
                                                                                           Bits Operation Value: 52
           int b = sc.nextInt();
 13
 14
 15
           int bitWise = a << b;</pre>
           int total = a+b;
 16
 17
           System.out.println("Sum Of Two Value: " +total);
 18
           System.out.println("Bits Operation Value: " +bitWise);
 19
 20
21 }
```

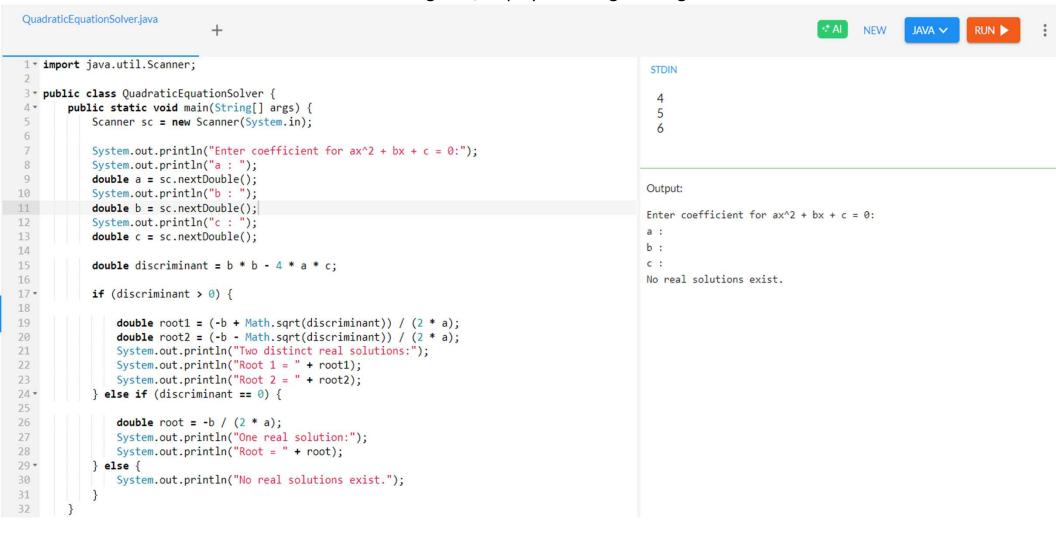
Write a program to perform arithmetic and bitwise operations by creating individual methods and classes than create an object to execute the individual methods of each operation.



Write a java program to display the employee details using Scanner class.



Write a Java program that prints all real solutions to the quadratic equation ax2+bx+c = 0. Read in a, b, c and use the quadratic formula. If the discriminate b2-4ac is negative, display a message stating that there are no real solutions?



The Fibonacci sequence is defined by the following rule. The first 2 values in the sequence are 1, 1. Every subsequent value is the sum of the 2 values preceding it. Write a Java program that uses both recursive and non- recursive functions to print the nth value of the Fibonacci sequence

```
+
Main.java
                                                                                        NEW
                                                                                              JAVA 🗸
                                                                                                      RUN
 1 import java.util.*;
                                                                    STDIN
                                                                     10
 3 public class Main {
        public static void main(String[] args) {
 4.
 5
            int n1 = 1, n2 = 1, n3 = 0, position;
                                                                    Output:
            Scanner sc = new Scanner(System.in);
 6
                                                                    Enter Position:
 7
                                                                    1 1 2 3 5 8 13 21 34 55
            System.out.println("Enter Position: ");
 8
            position = sc.nextInt();
 9
10
            System.out.print(n1 + " ");
11
12
13 -
            for (int i = 1; i < position; i++) {
                System.out.print(n2 + " ");
14
                n3 = n1 + n2;
15
                n1 = n2;
16
17
                n2 = n3;
18
19
        }
20 }
```

Practical No: 06 (using recursion)

```
FibonacciRecursive.java
                       +
                                                                                                       JAVA 🗸
                                                                                                NEW
                                                                                                               RUN >
 1 import java.util.Scanner;
                                                                           STDIN
                                                                           10
 3 public class FibonacciRecursive {
 5 -
         public static void main(String[] args) {
 6
                                                                          Output:
 7
             Scanner sc = new Scanner(System.in);
                                                                          Enter Number:
             System.out.println("Enter Number:");
 8
                                                                          Fibonacci Series:
             int n = sc.nextInt();
 9
                                                                          0 1 1 2 3 5 8 13 21 34
10
             System.out.println("Fibonacci Series:");
11
             for (int i = 0; i < n; i++) {
12 -
                 System.out.print(fibonacci(i) + " ");
13
14
15
16
17 -
         public static int fibonacci(int n) {
             if (n <= 1) {
18 -
19
                 return n;
             } else {
20 -
                 return fibonacci(n - 1) + fibonacci(n - 2);
21
22
23
24 }
25
```

Practical 10

Write a java program for Method overloading and Constructor overloading

```
Student.java
                                                                              Bharat5inh >
                                                                                                                                                             JAVA V
                                                                                                                                                     NEW
 1 - public class Student
         int id:
        String name;
                                                                                                                    Input for the program (Optional)
  5.
        Student() {
            System.out.println("this a default constructor");
  6
                                                                                                                   Output:
 8
                                                                                                                   this a default constructor
 9.+
        Student(int i, String n) {
10
            id = i;
                                                                                                                   Default Constructor values:
11
             name = n;
12
13
                                                                                                                   Student Id: 0
14 *
        public static void main(String[] args) {
                                                                                                                   Student Name : null
15
             Student s = new Student();
16
             System.out.println("\nDefault Constructor values: \n");
            System.out.println("Student Id : " + s.id + "\nStudent Name : " + s.name);
17
                                                                                                                   Parameterized Constructor values:
18
19
             System.out.println("\nParameterized Constructor values: \n");
                                                                                                                   Student Id: 10
20
             Student student = new Student(10, "David");
             System.out.println("Student Id : " + student.id + "\nStudent Name : " + student.name);
21
                                                                                                                   Student Name : David
23
24
26
27 - /*public static void main(String[] args) {
        Student s = new Student();
        Student(10, "smita");
30 }}*/
```