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LAB 1

Q.1.Write a Java program to print "Hello, World!" to the console.

Program:-

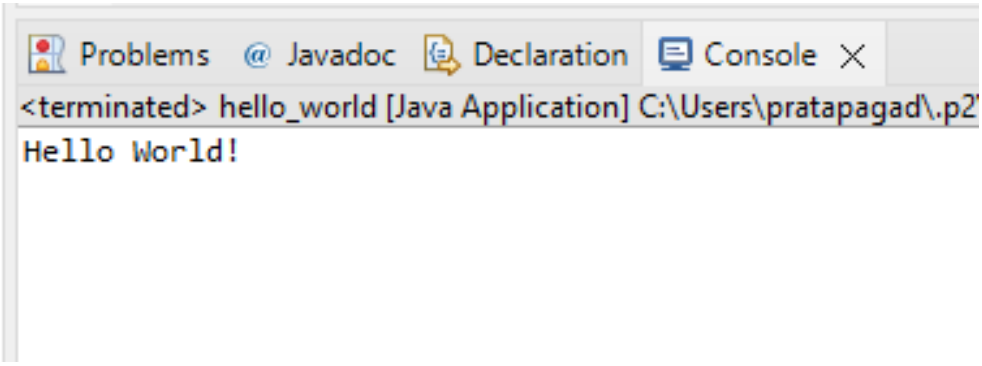
```
package demo;

public class hello_world {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		System.out.println("Hello World!");
		 //Printing hello world!
	}

}
```

Output:-



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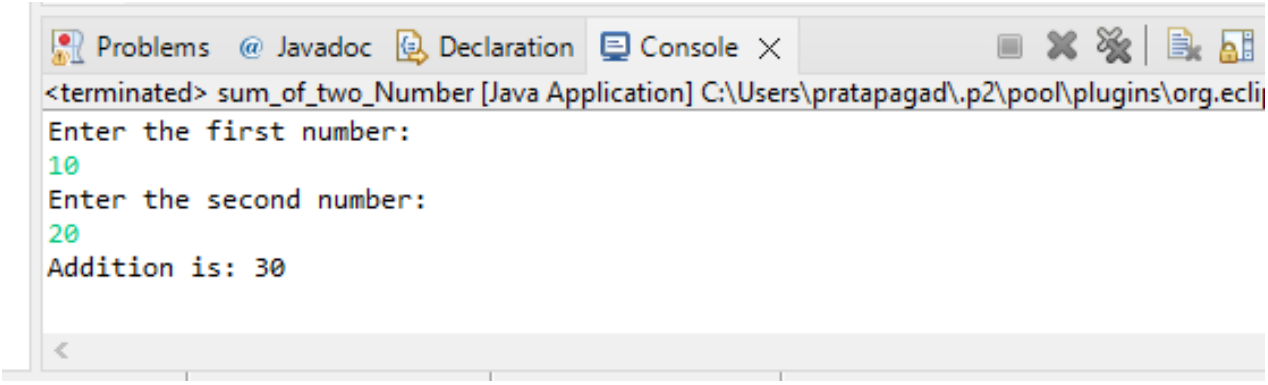
Q.2. Write a program to find the sum of two numbers entered by the user.

Program:-

```
package demo;
import java.util.Scanner;

public class sum_of_two_Number {

public static void main(String[] args) {
// TODO Auto-generated method stub
Scanner obj=new Scanner(System.in);
//creating the Scanner object
int n1,n2,add;
//declaring the variables
System.out.println("Enter the first number: ");
n1=obj.nextInt();
//taking first number input
System.out.println("Enter the second number: ");
n2=obj.nextInt();
//taking second number input
add=n1+n2;
//adding two number
System.out.println("Addition is: "+add);

}

}
```

Output:-



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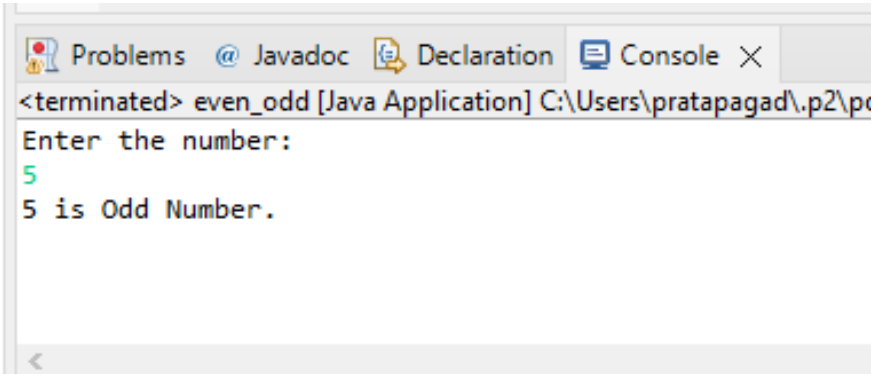
Q.3. Write a Java program to check whether a given number is even or odd.

Program:-

```
package demo;
import java.util.Scanner;

public class even_odd {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner obj=new Scanner(System.in);
		int n; //declaring the variable
		System.out.println("Enter the number: ");
		n=obj.nextInt(); //taking the number as a input
		if(n%2==0)//checking the remainder of input with 0
		{
			System.out.println(n+" is Even Number.");
		}
		else
		{
			System.out.println(n+" is Odd Number.");
		}

	}

}
```

Output:-



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Q.4. Write a java program to find greatest of 2 numbers.

Program:-

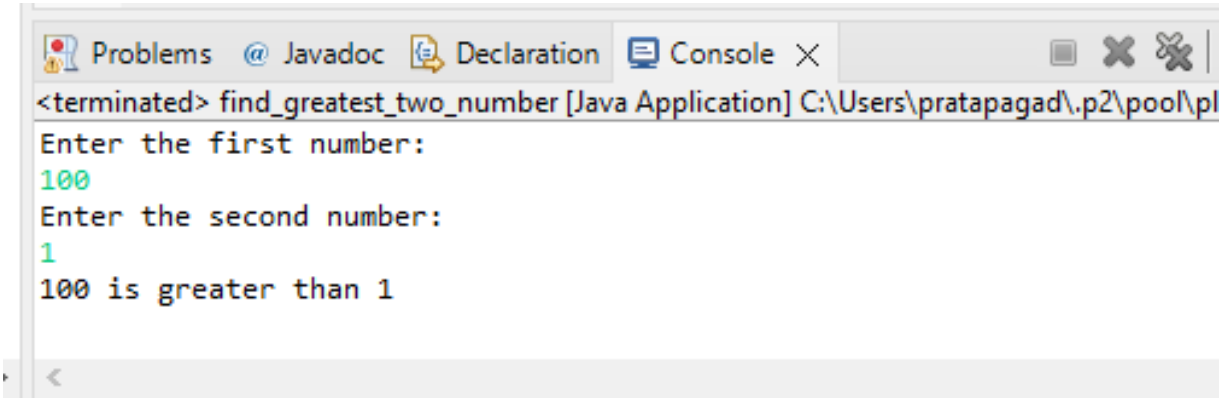
```
package demo;
import java.util.Scanner;
public class find_greatest_two_number {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		Scanner obj=new Scanner(System.in);
		//creating the scanner object
		int n1,n2; //declaring the variables
		System.out.println("Enter the first number: ");
		n1=obj.nextInt(); //first user input
		System.out.println("Enter the second number: ");
		n2=obj.nextInt(); //second user input
		if(n1>n2) //comparing both value that which value is greater
		{
		  System.out.println(n1+" is greater than "+n2);
		}
		else
		{
		  System.out.println(n1+" is smaller than "+n2);
		}

	}

}
```

Output:-



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Q.5. Write a program to implement a basic calculator that takes input as a string expression and evaluates it.

Program:-

```
package demo;
import java.util.Scanner;
public class basic_calculator {

	public static void main(String[] args) {

		char operator;
		Double number1, number2, result;

		// create an object of Scanner class
		Scanner input = new Scanner(System.in);

		// ask users to enter operator
		System.out.println("Choose an operator: +, -, *, or /");
		operator = input.next().charAt(0);

		// ask users to enter numbers
		System.out.println("Enter first number");
		number1 = input.nextDouble();

		System.out.println("Enter second number");
		number2 = input.nextDouble();

		switch (operator) {

		  // performs addition between numbers
		  case '+':
		    result = number1 + number2;
		    System.out.println(number1 + " + " + number2 + " = " + result);
		    break;

		  // performs subtraction between numbers
		  case '-':
		    result = number1 - number2;
		    System.out.println(number1 + " - " + number2 + " = " + result);
		    break;

		  // performs multiplication between numbers
		  case '*':
		    result = number1 * number2;
		    System.out.println(number1 + " * " + number2 + " = " + result);
		    break;

		  // performs division between numbers
		  case '/':
		    result = number1 / number2;
		    System.out.println(number1 + " / " + number2 + " = " + result);
		    break;

		  default:
		    System.out.println("Invalid operator!");
		    break;
		}
```

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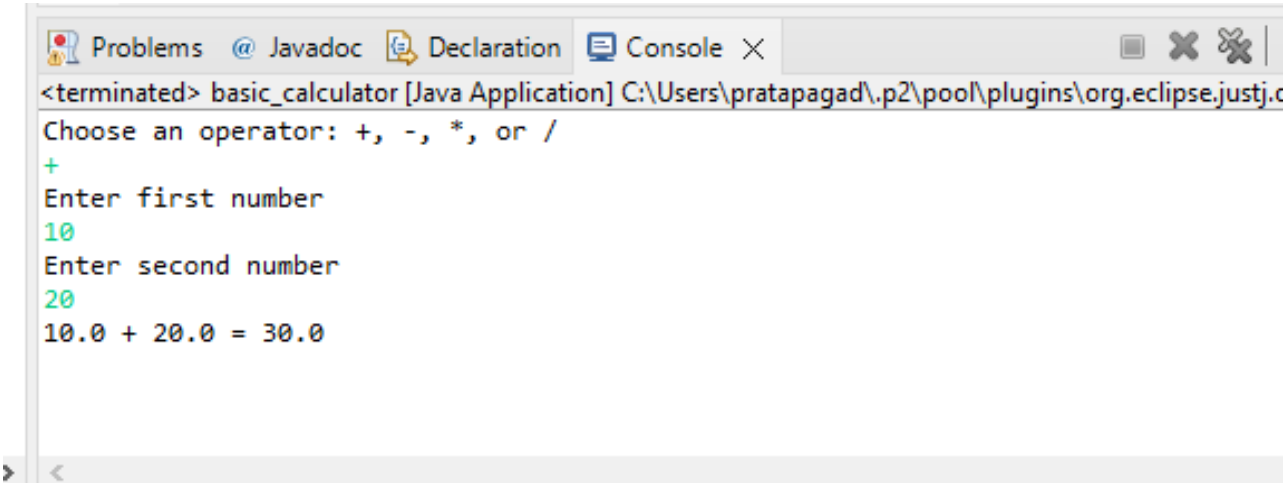
```
            input.close();
        }
}
```

Output:-



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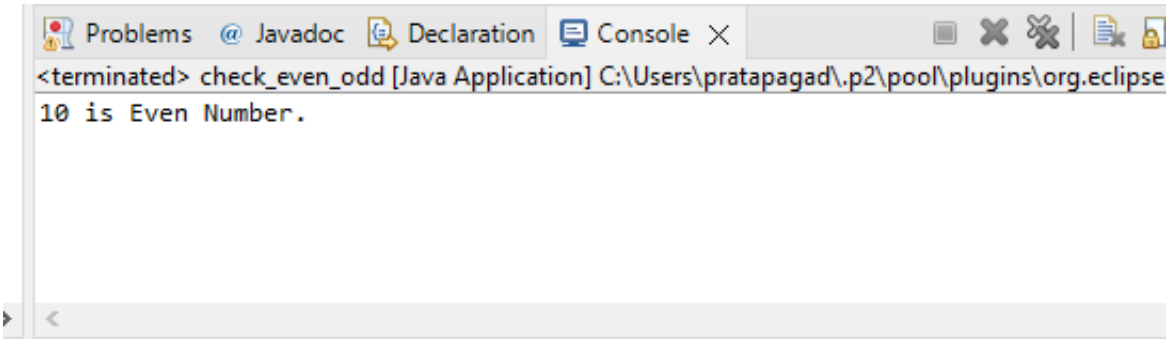
Q.6. Write a Java program to check if a given number is even or odd.

Program:-

```
package demo;

import java.util.Scanner;

public class check_even_odd {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		int n=10; //declaring and assigning the variable
		if(n%2==0)//checking the remainder of input with 0
		{
			System.out.println(n+" is Even Number.");
			//print the statement if it is even
		}
		else
		{
			System.out.println(n+" is Odd Number.");
			//print the statement if it is odd
		}

	}

}
```

Output:-



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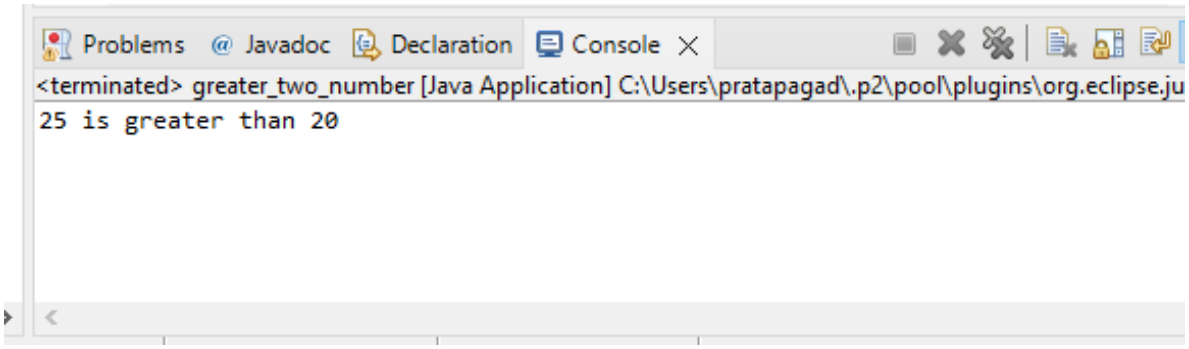
Q.7. Create a Java program that compares two numbers and prints the larger one.

Program:-

```
package demo;

public class greater_two_number {

                    public static void main(String[] args) {
                    // TODO Auto-generated method stub
                    int n1=25,n2=20; //declaring and assigning the
variables
                    if(n1>n2) //comparing both value that which value is
greater
                    {
                      System.out.println(n1+" is greater than "+n2);
                    }
                    else
                    {
                      System.out.println(n1+" is smaller than "+n2);
                    }


        }

}
```

Output:-



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Q.8. Write a Java program that takes an age input from the user and determines if they are eligible to vote (considering the legal voting age).

Program:-

```
package demo;
import java.util.Scanner;

public class eligible_vote {

	public static void main(String[] args) {
	// TODO Auto-generated method stub
	Scanner obj=new Scanner(System.in);
	//creating the scanner object
	int age; //declaring the variable
	System.out.println("Enter your age: ");
	age=obj.nextInt();//taking user's age as an input
	if(age>=18)//check whether the user is eligible for voting or not
	{
		System.out.println("Eligible for voting");
	}
	else
	{
		System.out.println("Not eligible for voting");
	}

	}
}
```

Output:-