LAB :-2

1. Write a program that takes a student's score as input and outputs the corresponding grade based on the following scale:

A: 90-100

B: 80-89

C: 70-79

D: 60-69

F: 0-59

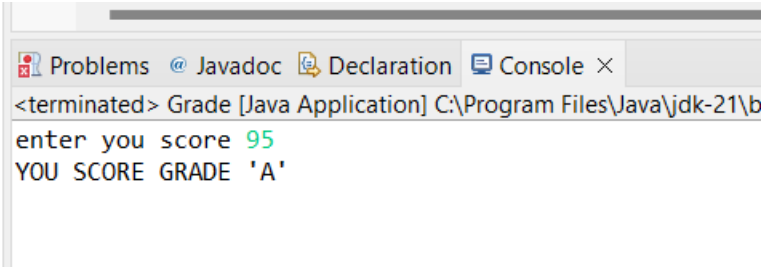
CODE:-

```
package Assignments;
import java.util.Scanner;
public class Grade {
	public static void main(String[]args)
	{
		System.out.print("enter you score "); //print statement to take input by
user

		Scanner sc=new Scanner(System.in); //object decleration
		int score=sc.nextInt();
		if(score>=90 && score<=100)  //logic to grade A
		{
			System.out.println("YOU SCORE GRADE 'A' ");
		}
		else if(score>=80 && score<=89) //logic to grade B
		{
			System.out.println("YOU SCORE GRADE 'B' ");
		}
		else if(score>=70 && score<=79) //logic to grade C
		{
			System.out.println("YOU SCORE GRADE 'C' ");
		}
		else if(score>=60 && score<=69) //logic to grade D
		{
			System.out.println("YOU SCORE GRADE 'D' ");
		}
		else  //logic to grade F
		{
			System.out.println("YOU SCORE GRADE 'F' ");
		}
	}
```

}

OUTPUT:-



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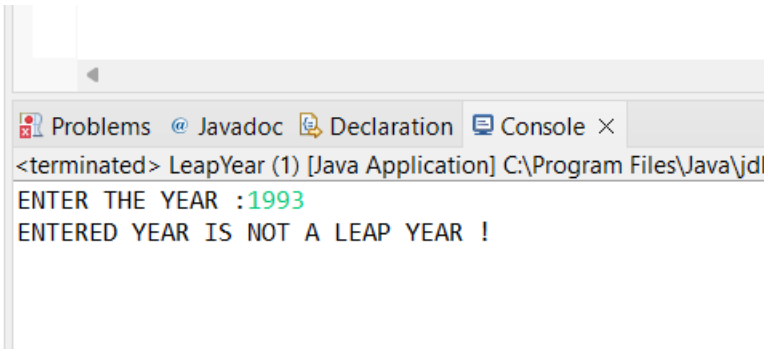
2. Write a program to check if a given year is a leap year. (A year is a leap year if it is divisible by 4 but not by 100, or it is divisible by 400.)

CODE:-

```
package Assignment;
import java.util.Scanner;
public class LeapYear {

	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in); //object declaration

		System.out.print("ENTER THE YEAR :");
		int year=sc.nextInt();

		boolean LeapYear=(year % 4 == 0 && year % 100 != 0)||(year % 400 == 0
); //logic for declar leap year
		if(LeapYear)
		{
			System.out.print("ENTERED YEAR IS LEAP YEAR !");

		}
		else
		{
			System.out.print("ENTERED YEAR IS NOT A LEAP YEAR !");
		}
	}

}
```

OUTPUT:-



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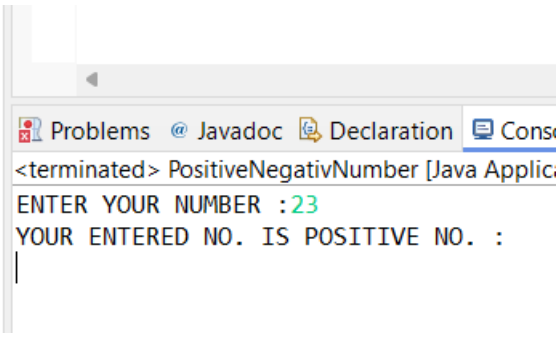
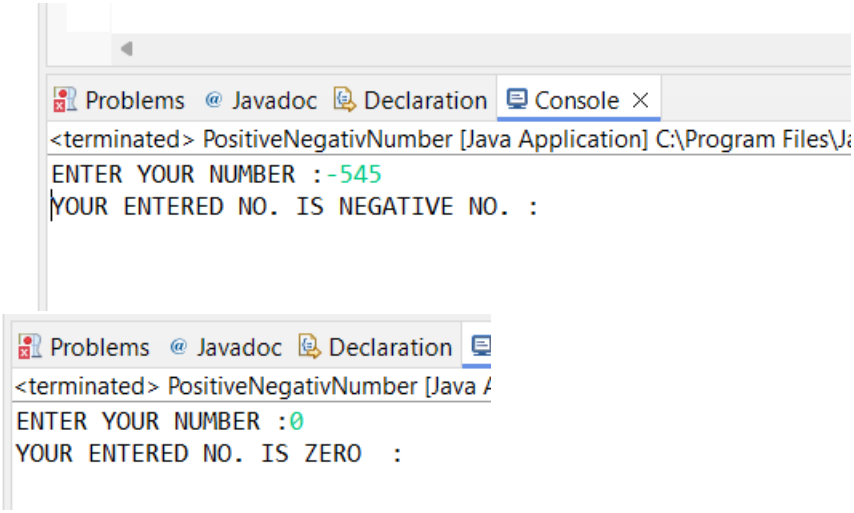
3. Write a program that takes an integer as input and checks if it is positive, negative, or zero.

CODE:-

```
package Assignment;
import java.util.Scanner;
public class PositiveNegativNumber {

	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in); //create an scanneer object to take
input

		System.out.print("ENTER YOUR NUMBER :");
		int number=sc.nextInt();

		if(number>0)
		{
			System.out.println("YOUR ENTERED NO. IS POSITIVE NO. :");
		}
		if(number<0)
		{
			System.out.println("YOUR ENTERED NO. IS NEGATIVE NO. :");
		}
		if(number == 0)
		{
			System.out.println("YOUR ENTERED NO. IS ZERO  :");
		}
	}

}
```

OUTPUT:-





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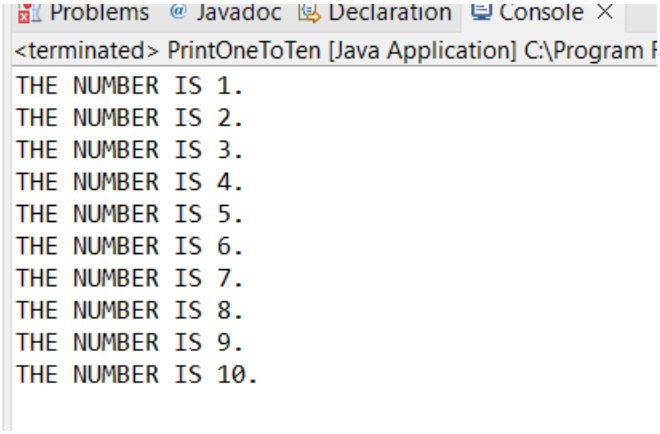
4. Write a program that prints numbers from 1 to 10 using a loop.

CODE:-

```
package Assignment;

public class PrintOneToTen {

	public static void main(String[] args) {
		int i;

		for(i=1;i <= 10;i++) //logic to print 1 to 10.

		System.out.println("THE NUMBER IS "+ i);

	}

}
```

OUTPUT:-



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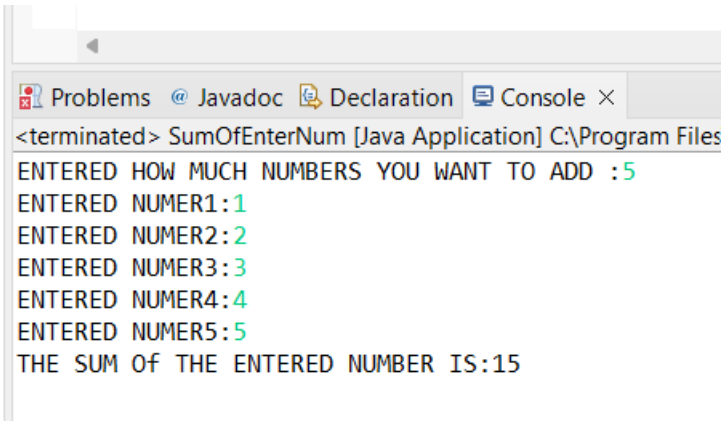
5. Write a program that takes an integer N as input and calculates the sum of entered numbers.

CODE:-

```
package Assignment;
import java.util.Scanner;
public class SumOfEnterNum {

	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in);// object declaration

		System.out.print("ENTERED HOW MUCH NUMBERS YOU WANT TO ADD :");
		int num=sc.nextInt();

		int totalSum=0; //initialize sum =0

		for(int i=1; i <= num; i++)
		{
			System.out.print("ENTERED NUMER" + i + ":");
			int number=sc.nextInt();
			totalSum += number;

		}
		System.out.print("THE SUM Of THE ENTERED NUMBER IS:"+totalSum);
		sc.close();
	}

}
```

OUTPUT : -



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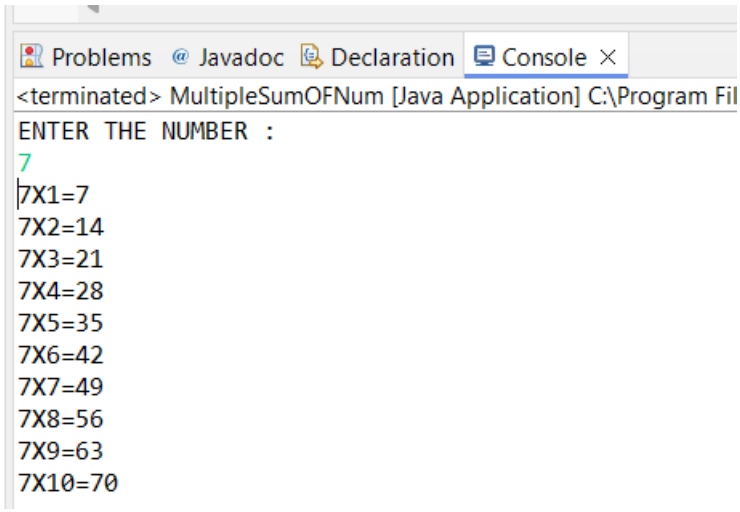
6. Write a program that takes an integer as input and prints its multiplication table up to 10.

CODE:-

```
package Assignment;
import java.util.Scanner;
public class MultipleSumOFNum {

	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in); //object declaration

		System.out.println("ENTER THE NUMBER :");
		int num=sc.nextInt();

		for(int i=1;i<11;i++)
		{
			System.out.println( num + "X" +i +"="+(num*i));
		}
		sc.close();
	}

}
```

OUTPUT:-



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7. Write a program that takes a positive integer as input and prints its digits in reverse order.

CODE:-

```
package Assignment;
import java.util.Scanner;
public class ReverseOrder {

	public static void main(String[] args) {
		Scanner sc=new Scanner(System.in); //object declaration

		System.out.println("ENTER THE NUMBER :");
		int num=sc.nextInt();

		if(num<0) //logic to postive number
		{
			System.out.println("THE ENTERED NUMBER IS NOT  POSITIVE");
		}
		else //logic to print negative
		{
			System.out.println("THE ENTERED NUMBER IS  POSITIVE");
			while (num != 0 )
			{
				int digit=num%10;
				System.out.print(digit);
				num /= 10;
			}
			System.out.println();
		}
		sc.close();
	}
```

}
OUTPUT:

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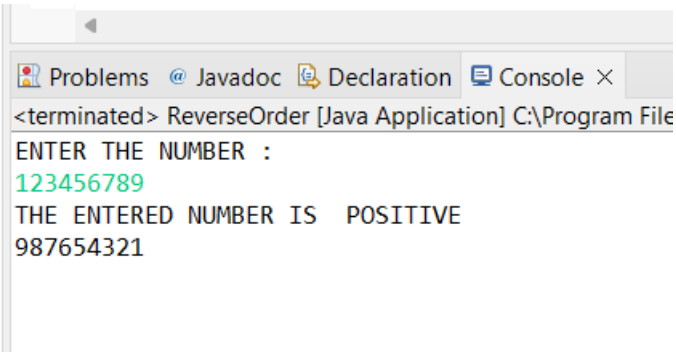

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8. Create a class Animal with a method makeSound() that prints "Some generic animal sound". Create another class Dog that extends Animal and overrides the makeSound() method to print "Bark". Write a main method to demonstrate calling the makeSound() method on an Animal reference holding a Dog object.

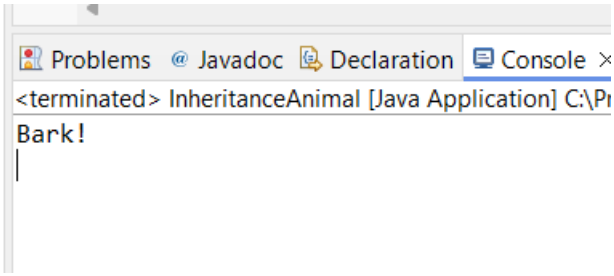
CODE:-

```
package Assignment;

class Animal //define animal class
{
	public void makeSound() //define makesound method
	{
		System.out.println("Some Generic animal sound ");
	}
}
class Dog extends Animal //define Dog class
{
	public void makeSound() //define makesound method
	{
		System.out.println("Bark! ");
	}
}
public class InheritanceAnimal {

	public static void main(String[] args) {
		Animal myDog=new Dog();
		myDog.makeSound();
	}
}
```

OUTPUT:-


Problems
Javadoc
Declaration
Console
<terminated> InheritanceAnimal [Java Application] C:\P
Bark!