CDAC Mumbai

Lab Assignment 1: Flowchart and Java Programming

# Flowchart + Java Program Questions

1. **Check Positive Number:**
   * **Task**: Create a flowchart to check whether a number is positive.



* + **Next Step**: Write a Java program that checks if a predefined number is positive using an if-else statement and prints the appropriate message.

class Num

{

    public static void main(String args[])

    {

        int no=5;

        if(no>0)

        {

          System.out.println("The number "+ no +" is positive number");

        }

        else

        {

           System.out.println("The number "+ no +" is not positive number");

        }

    }

}

Output:

The number 5 is positive number

# Check Negative Number:

* + **Task**: Create a flowchart to check whether a number is negative.



* + **Next Step**: Write a Java program that checks if a predefined number is negative using an if-else statement and displays the result.

class Num

{

public static void main(String args[])

{

int no=-5;

if(no<0)

{

System.out.println("The number "+ no +" is Negative number");

}

else

{

System.out.println("The number "+ no +" is not Negative number");

}

}

}

Output:

The number -5 is Negative number

# Check Odd or Even Number:

* + **Task**: Create a flowchart to determine whether a number is odd or even.



* + **Next Step**: Write a Java program that checks if a predefined number is odd or even. Use an if-else statement and the modulus operator (%) to determine whether the number is divisible by 2 or not.

class Num

{

public static void main(String args[])

{

int no=8;

if(no%2==0)

{

System.out.println("The number "+ no +" is Even number");

}

else

{

System.out.println("The number "+ no +" is Odd number");

}

}

}

Output:

The number 8 is Even number

# Display Good Morning Message Based on Time:

* + **Task**: Create a flowchart to display a "Good Morning" message based on a given time.



* + **Next Step**: Write a Java program that displays a "Good Morning" message if the predefined time is between 5 AM and 12 PM. Use an if statement to implement the logic.

class Time

{

    public static void main(String args[])

    {

        int time=7;

        if(time>=5&&time<=12)

        {

           System.out.println("Good Morning");

        }

        else

        {

            System.out.println("Good day");

        }

    }

}

Output:

Good Morning

# Print Area of a Square:

* + **Task**: Create a flowchart to calculate and print the area of a square.



* + **Next Step**: Write a Java program that calculates the area of a square using the formula area = side \* side. Use a predefined side length.

class Square

{

    public static void main(String args[])

    {

        int side=8;

        int area=side\*side;

        System.out.println("The area of Square= "+area);

    }

}

Output:

The area of Square= 64

# Print Area of a Rectangle:

* + **Task**: Create a flowchart to calculate and print the area of a rectangle.



* + **Next Step**: Write a Java program that calculates the area of a rectangle using the formula area = length \* width. Use predefined values for length and width.

class Rectangle

{

    public static void main(String args[])

    {

        int length=8,breadth=5;

        int area=length\*breadth;

        System.out.println("The area of Rectangle= "+area);

    }

}

Output:

The area of Rectangle= 40

# Find the Largest of Three Numbers:

* + **Task**: Create a flowchart to find the largest of three numbers.



* + **Next Step**: Write a Java program that finds and prints the largest of three predefined numbers using if-else statements.

class Num

{

    public static void main(String args[])

    {

        int n1=35,n2=10,n3=15;

        if(n1>n2&&n1>n3)

        {

           System.out.println("The number " +n1+ " is largest");

        }

        else if(n2>n3&&n2>n1)

        {

            System.out.println("The number " +n2+ " is largest");

        }

        else

        {

           System.out.println("The number " +n3+ " is largest");

        }

    }

}

Output:

The number 35 is largest