

3.B Logical OR:

1. Write a Java program that checks whether a given number is divisible by either 3 or 5. If it is, print "Divisible"; otherwise, print "Not divisible."

Code:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("23MCA1030");

        System.out.print("Enter a number: ");

        int number = input.nextInt();

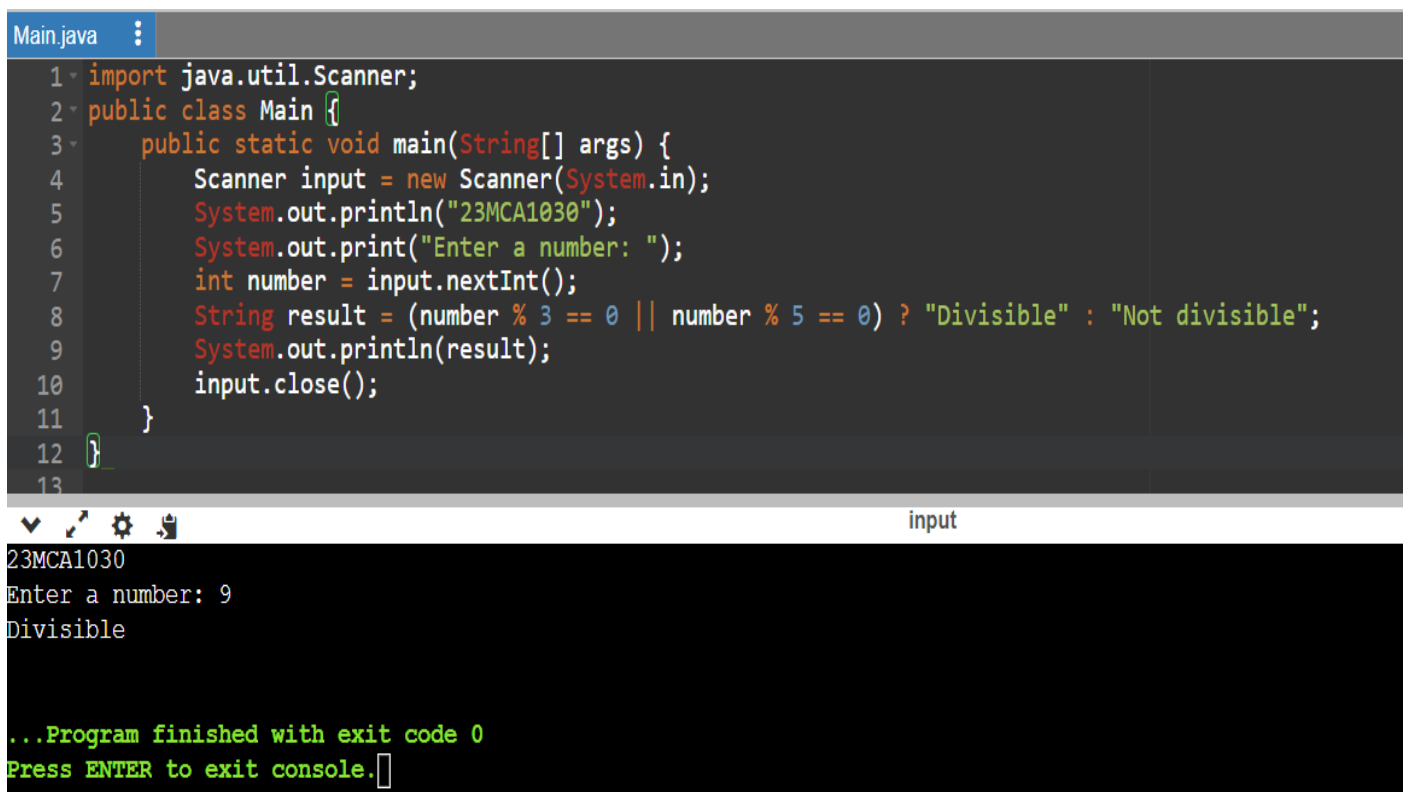
        String result = (number % 3 == 0 || number % 5 == 0) ? "Divisible" : "Not
divisible";

        System.out.println(result);

        input.close();

    }

}
```



The screenshot shows an IDE window titled 'Main.java' containing the same Java code as above. Below the code editor, the console output is visible, showing the program's execution with the input '9' and the output 'Divisible'.

```
1 import java.util.Scanner;
2 public class Main {
3     public static void main(String[] args) {
4         Scanner input = new Scanner(System.in);
5         System.out.println("23MCA1030");
6         System.out.print("Enter a number: ");
7         int number = input.nextInt();
8         String result = (number % 3 == 0 || number % 5 == 0) ? "Divisible" : "Not divisible";
9         System.out.println(result);
10        input.close();
11    }
12 }
13
```

input

23MCA1030
Enter a number: 9
Divisible

...Program finished with exit code 0
Press ENTER to exit console.

2. Create a Java program to determine if a person is eligible to vote. The eligibility age is 18. Check if the age entered by the user is either equal to or greater than 18. Print "Eligible" if true, otherwise, print "Not Eligible."

Code:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("23MCA1030");

        System.out.print("Enter age: ");

        int age = input.nextInt();

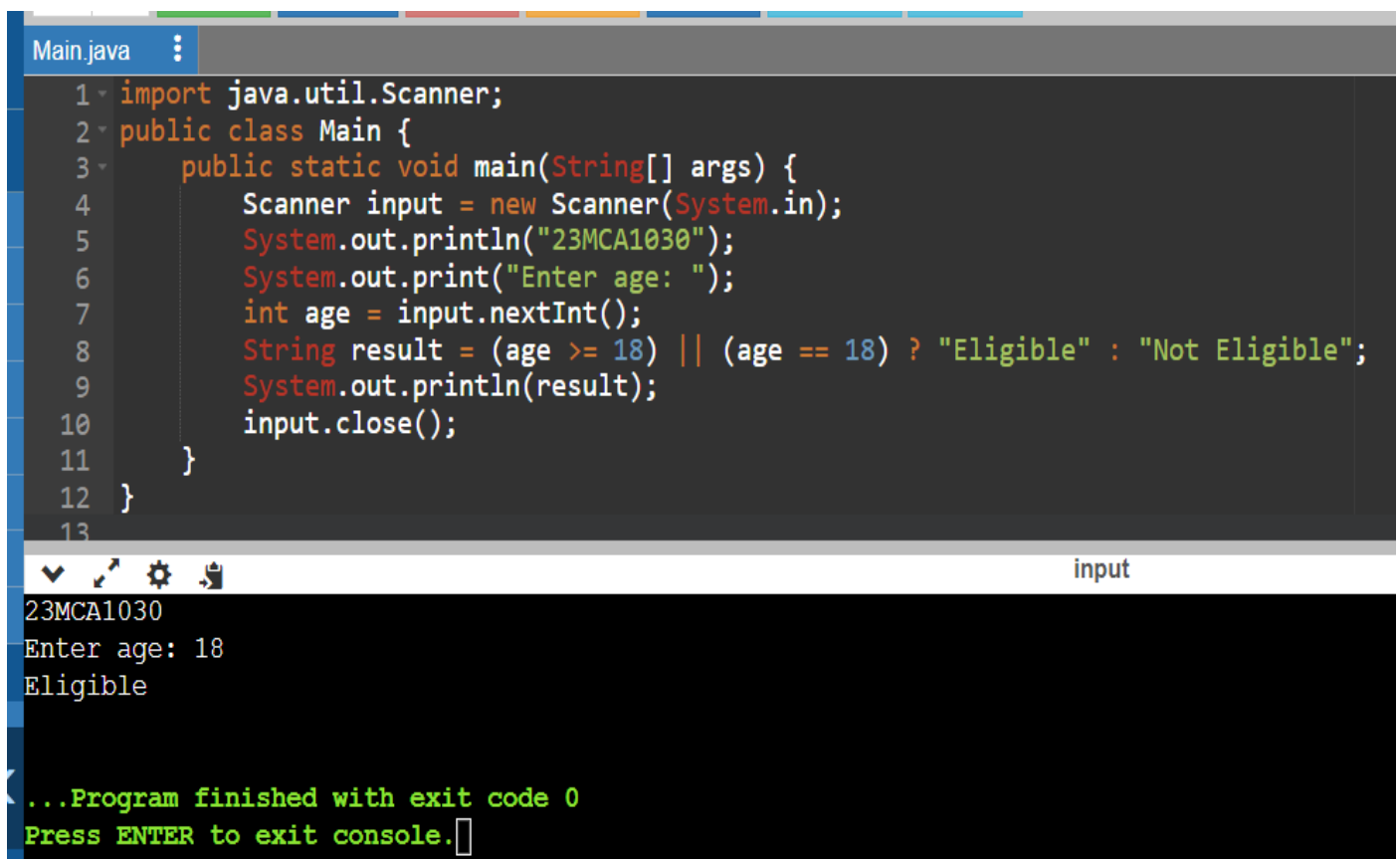
        String result = (age >= 18) || (age == 18) ? "Eligible" : "Not Eligible";

        System.out.println(result);

        input.close();

    }

}
```



The screenshot shows an IDE window titled 'Main.java' containing the same Java code as the previous block. Below the code editor, the console output is visible. It shows the program printing '23MCA1030', then 'Enter age: 18', and finally 'Eligible'. At the bottom, a message states '...Program finished with exit code 0' and 'Press ENTER to exit console.'.

```
1 import java.util.Scanner;
2 public class Main {
3     public static void main(String[] args) {
4         Scanner input = new Scanner(System.in);
5         System.out.println("23MCA1030");
6         System.out.print("Enter age: ");
7         int age = input.nextInt();
8         String result = (age >= 18) || (age == 18) ? "Eligible" : "Not Eligible";
9         System.out.println(result);
10        input.close();
11    }
12 }
13
```

input

23MCA1030
Enter age: 18
Eligible

...Program finished with exit code 0
Press ENTER to exit console.

3. Write a program to check if a given number is either positive or even. If the number is positive or even (or both), print "Positive or Even"; otherwise, print "Neither Positive nor Even."

Code:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("23MCA1030");

        System.out.print("Enter number: ");

        int num = input.nextInt();

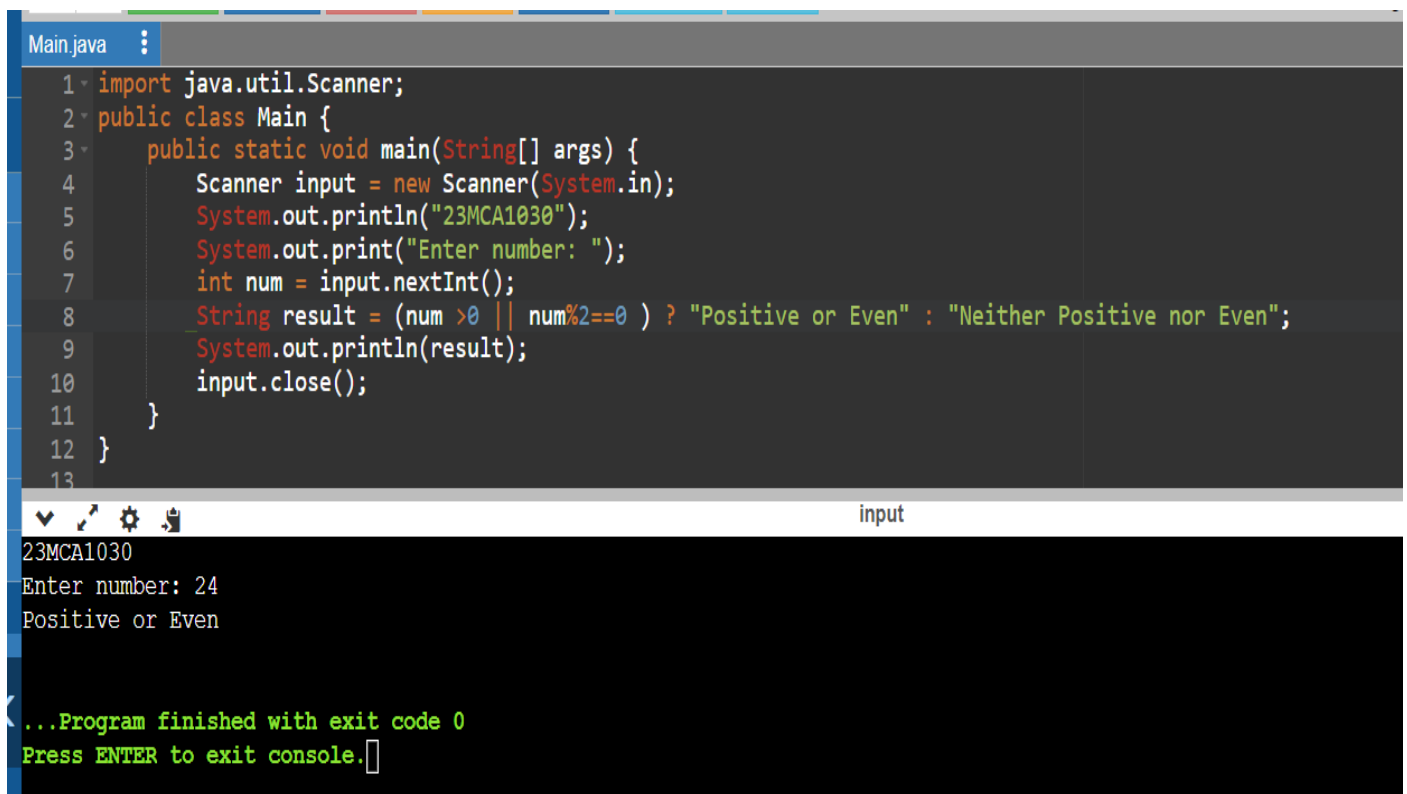
        String result = (num > 0 || num%2==0 ) ? "Positive or Even" : "Neither Positive nor Even";

        System.out.println(result);

        input.close();

    }

}
```



The screenshot shows an IDE window titled 'Main.java' containing the same Java code as the previous block. Below the code editor, the console output is visible. It shows the program printing '23MCA1030', then 'Enter number: 24'. The user has entered '24', and the program has printed 'Positive or Even'. At the bottom, the console shows '...Program finished with exit code 0' and 'Press ENTER to exit console.' with a cursor.

```
1 import java.util.Scanner;
2 public class Main {
3     public static void main(String[] args) {
4         Scanner input = new Scanner(System.in);
5         System.out.println("23MCA1030");
6         System.out.print("Enter number: ");
7         int num = input.nextInt();
8         String result = (num > 0 || num%2==0 ) ? "Positive or Even" : "Neither Positive nor Even";
9         System.out.println(result);
10        input.close();
11    }
12 }
13
```

input

23MCA1030
Enter number: 24
Positive or Even

...Program finished with exit code 0
Press ENTER to exit console.

4. Write a Java program that takes a number as input and checks whether it is either an odd number or a multiple of 3. If the condition is true, print "Odd or Multiple of 3"; otherwise, print "Neither Odd nor Multiple of 3."

Code:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("23MCA1030");

        System.out.print("Enter number: ");

        int number = input.nextInt();

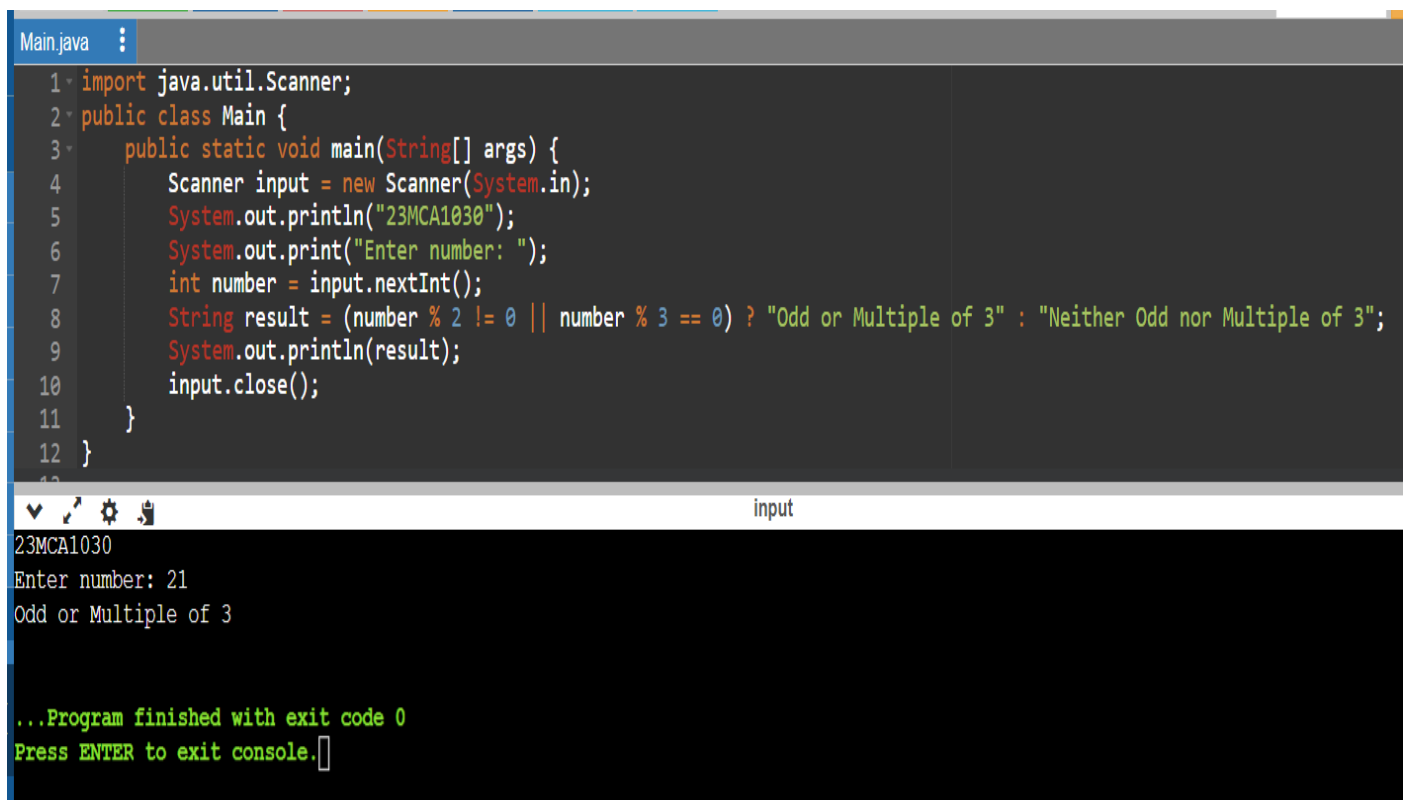
        String result = (number % 2 != 0 || number % 3 == 0) ? "Odd or Multiple of 3"
: "Neither Odd nor Multiple of 3";

        System.out.println(result);

        input.close();

    }

}
```



The screenshot shows an IDE window titled 'Main.java' containing the same Java code as the previous block. Below the code editor, the console output is visible. It shows the program printing '23MCA1030', then 'Enter number: 21'. The user has entered '21', and the program outputs 'Odd or Multiple of 3'. At the bottom, it says '...Program finished with exit code 0' and 'Press ENTER to exit console.'

```
1 import java.util.Scanner;
2 public class Main {
3     public static void main(String[] args) {
4         Scanner input = new Scanner(System.in);
5         System.out.println("23MCA1030");
6         System.out.print("Enter number: ");
7         int number = input.nextInt();
8         String result = (number % 2 != 0 || number % 3 == 0) ? "Odd or Multiple of 3" : "Neither Odd nor Multiple of 3";
9         System.out.println(result);
10        input.close();
11    }
12 }
```

23MCA1030
Enter number: 21
Odd or Multiple of 3
...Program finished with exit code 0
Press ENTER to exit console.

5. Implement a program that checks whether a given number is divisible by either 7 or 11. Print "Divisible by 7 or 11" if true; otherwise, print "Not divisible by 7 or 11."

Code:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);

        System.out.println("23MCA1030");

        System.out.print("Enter number: ");

        int number = input.nextInt();

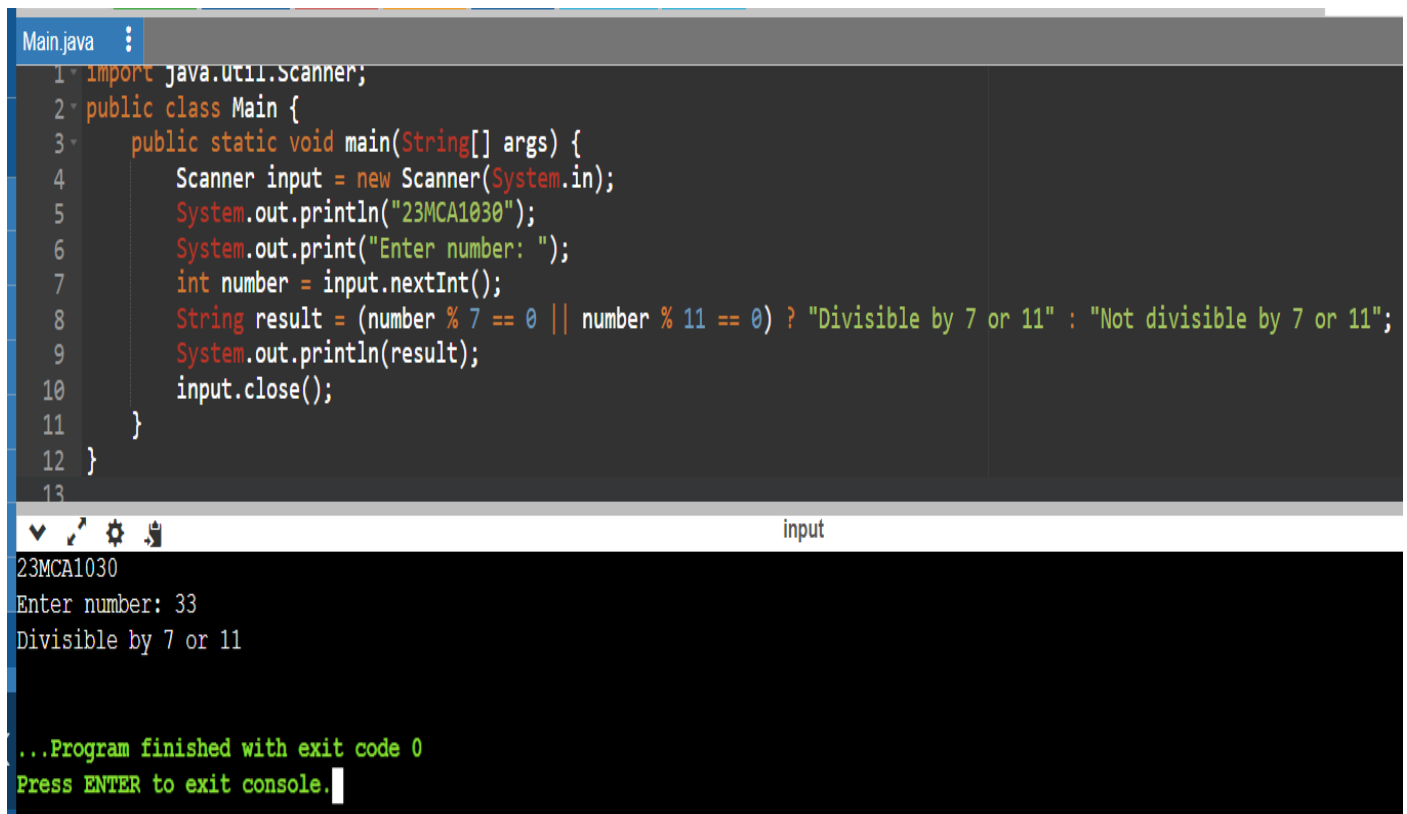
        String result = (number % 7 == 0 || number % 11 == 0) ? "Divisible by 7 or 11" : "Not divisible by 7 or 11";

        System.out.println(result);

        input.close();

    }

}
```



The screenshot shows an IDE window titled 'Main.java' containing the same Java code as the previous block. Below the code editor, the console output is visible. The first line of output is '23MCA1030'. The second line is 'Enter number: 33'. The third line is 'Divisible by 7 or 11'. At the bottom, a green message states '...Program finished with exit code 0' and 'Press ENTER to exit console.'.

```
Main.java :
1 import java.util.Scanner;
2 public class Main {
3     public static void main(String[] args) {
4         Scanner input = new Scanner(System.in);
5         System.out.println("23MCA1030");
6         System.out.print("Enter number: ");
7         int number = input.nextInt();
8         String result = (number % 7 == 0 || number % 11 == 0) ? "Divisible by 7 or 11" : "Not divisible by 7 or 11";
9         System.out.println(result);
10        input.close();
11    }
12 }
13

input
23MCA1030
Enter number: 33
Divisible by 7 or 11

...Program finished with exit code 0
Press ENTER to exit console.
```

6. Write a program that takes the temperature as input and checks if it is either below freezing (less than 0 degrees Celsius) or above 40 degrees Celsius. Print "Below Freezing or Above 40 degrees" if true; otherwise, print "Temperature within acceptable range"

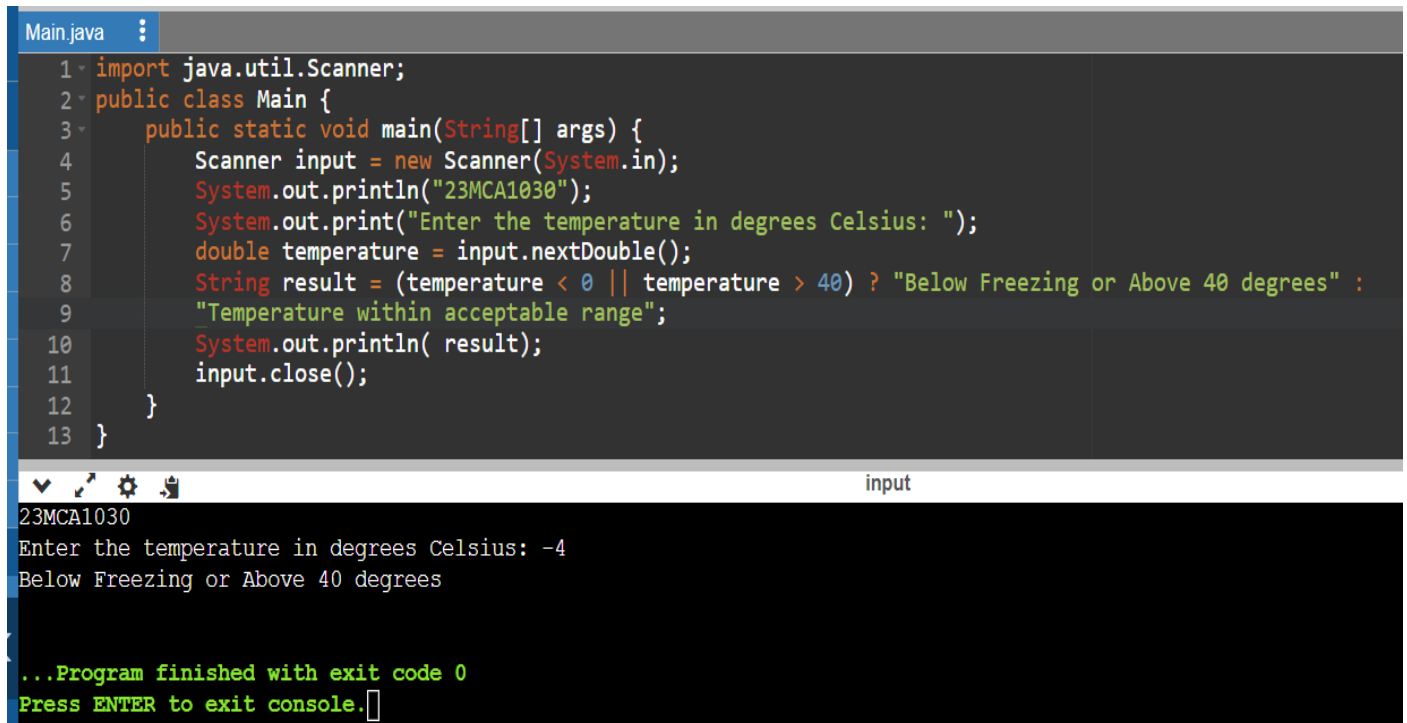
Code:

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.println("23MCA1030");
        System.out.print("Enter the temperature in degrees Celsius: ");
        double temperature = input.nextDouble();
        String result = (temperature < 0 || temperature > 40) ? "Below Freezing or Above 40 degrees" : "Temperature within acceptable range";
        System.out.println( result);
        input.close();
    }
}
```



The screenshot shows an IDE window titled 'Main.java' containing the same Java code as the previous block. Below the code editor, the console output is visible. The first line of output is '23MCA1030', which corresponds to the line 'System.out.println("23MCA1030");' in the code. The next line is 'Enter the temperature in degrees Celsius: -4', which is the prompt followed by the user input '-4'. The final line of output is 'Below Freezing or Above 40 degrees', which is the result of the conditional check. At the bottom, the console shows '...Program finished with exit code 0' and 'Press ENTER to exit console.'.

```
Main.java
1 import java.util.Scanner;
2 public class Main {
3     public static void main(String[] args) {
4         Scanner input = new Scanner(System.in);
5         System.out.println("23MCA1030");
6         System.out.print("Enter the temperature in degrees Celsius: ");
7         double temperature = input.nextDouble();
8         String result = (temperature < 0 || temperature > 40) ? "Below Freezing or Above 40 degrees" :
9         "Temperature within acceptable range";
10        System.out.println( result);
11        input.close();
12    }
13 }
```

input

23MCA1030

Enter the temperature in degrees Celsius: -4

Below Freezing or Above 40 degrees

...Program finished with exit code 0

Press ENTER to exit console.