**Java \_code-1**

import java.util.Scanner;

class kl {

    static int m1(int i) {

        return i;

    }

    static void opraters() {

        boolean n1 = true;

        boolean n2 = false;

        boolean n3 = true;

        System.out.println(n1 || n2 || n3);// true

        System.out.println(n1 && n2 && n3);// false

        System.out.println(n1 || n2 && n3);// true, && has higher precedence

        System.out.println(n1 && n2 || n3);// true

        System.out.println(10 == 20); // false

        System.out.println('a' == 'b');// false

        System.out.println('a' == 97);// true

        System.out.println(true == true);// true

        System.out.println(false == false); // true

        int a = 55;

        int b = 77;

        System.out.println(a < 50 || a < b);// true

        System.out.print(1 + 2 \* 3 / 4 \* 5 + 6);// 12

        /\*

         \* 1+2\*3/4\*5+6

         \* 1+6/4\*5+6

         \* 1+1\*5+6

         \* 1+5+6

         \* 6+6

         \* 12

         \*

         \*/

        System.out.println("Java" + 1000 + 2000 + 3000);// Java100020003000

        System.out.println(1000 + 2000 + 3000 + "Java"); // 6000Java

        System.out.println(7.7 + 3.3 + "Java" + 3.3 + 7.7);// 11.0Java3.37.7

        System.out.println("ONE" + 2 + 3 + 4 + "FIVE"); // ONE234FIVE

        System.out.println(10 / 0.0);// Infinity, bcoz float can represent Infinity

        System.out.println(10 / 0); // ArithmeticException, not int can represent Infinity

    }

    static void cstring() {

        String n1 = "abc";

        String n2 = "abc";

        System.out.println(n1 == n2);// true scp

        System.out.println(n1.equals(n2));// true

        String n3 = n1 + "";

        System.out.println(n1 == n3);// false compare ref object pts same object

        System.out.println(n1.equals(n3));// true compare content

        String s = new String("abc");

        Object o = new Object();

        Object o1 = s;

        System.out.println(s == o);// false

        System.out.println(s == o1);// ture bcoz s & o1 points same object

    }

    static void greaterIn3(int a, int b, int c) {

        if (a > b && a < c) {

            System.out.println(a + " is greater");

        } else if (b > a && b > c) {

            System.out.println(b + " is greater");

        } else {

            System.out.println(c + " is greater");

        }

    }

    static void fibo(int n) {

        int a = 0;

        int b = 1;

        if (n <= 0) {

            System.out.println("wrong i/p");

        } else if (n == 1) {

            System.out.println(a);

        } else {

            System.out.print(a + " ");

            for (int i = 2; i <= n; i++) {

                System.out.print(b + " ");

                int c = a + b;

                a = b;

                b = c;

            }

        }

    }

    static boolean check\_prime(int n) {

        for (int i = 2; i < n; i++) {

            if (n % i == 0) {

                return false;

            }

        }

        return true;

    }

    static void print\_prime(int n) {

        for (int i = 2; i <= n; i++) {

            if (check\_prime(i)) {

                System.out.print(i + " ");

            }

        }

    }

    static void print\_odd() {

        Scanner sc = new Scanner(System.in);

        System.out.println("enter a number");

        int n = sc.nextInt();

        int i = 0;

        do {

            if (i % 2 != 0) {

                System.out.println(i);

            }

            i++;

        } while (i < n);

        sc.close();

    }

    public static void main(String[] args) {

        // kl.print\_odd();

        // System.out.println(kl.check\_prime(4));

        // print\_prime(20);

        // fibo(15);

        // greaterIn3(1, 4, 2);

        // cstring();

        // opraters();

       // System.out.println(m1(1) + m1(2) \* m1(3) / m1(4) \* m1(5) + m1(6));// 12

    }

}

 static void check\_validity2() {

        String user\_name = "abc";

        String password = "123";

        Scanner sc = new Scanner(System.in);

        System.out.println("enter user id");

        String user\_name1 = sc.nextLine();

        System.out.println("enter password");

        String password1 = sc.nextLine();

        if (user\_name.equals(user\_name1) && password.equals(password1)) {

            System.out.println("y are valid user");

        } else {

            System.out.println("y are not valid user");

        }

      sc.close();

    }

 static void check\_validity() {

        Scanner sc = new Scanner(System.in);

        System.out.println("enter password");

        String st = sc.nextLine();

        int length = st.length();

        if (length < 4) {

            System.out.println("weak password");

        } else if (length > 4 && length < 8) {

            System.out.println("medium password");

        } else {

            System.out.println("strong password");

        }

        sc.close();

    }

**Try catch**

1. **public class Main {**

**public static void main(String[] args) {**

**try {**

**String str = "abc";**

**int num = Integer.parseInt(str);**

**System.out.println("Number: " + num);**

**} catch (NumberFormatException e) {**

**e.printStackTrace();**

**}**

**}**

**}**

**2.** **import java.io.FileInputStream;**

**import java.io.IOException;**

**public class IOExceptionExample {**

**public static void main(String[] args) {**

**try {**

**FileInputStream fis = new FileInputStream("file.txt"); // This line may throw IOException**

**// Other file handling operations**

**} catch (IOException e) {**

**System.out.println("Error: " + e.getMessage());**

**}**

**}**

**}**

**3.** **public class NullPointerExceptionExample {**

**public static void main(String[] args) {**

**try {**

**String str = null;**

**int length = str.length(); // This line will throw NullPointerException**

**System.out.println("Length: " + length); // This line won't be executed**

**} catch (NullPointerException e) {**

**System.out.println("Error: Null pointer exception");**

**}**

**}**

**}**

**Q. tell the output of given code ?**

**Q.1**

**public class Main{**

**public static void main(String[] args) {**

**for(int i = 12 ; i > 0 ; i -=3)**

**System.out.println(i);**

**System.out.println("");**

**} }**

**//output**

**12**

**9**

**6**

**3**

**Q.2**

**public class Main {**

**public static void main(String[] args) {**

**final int iLoc = 3;**

**final Integer iFour = 4;//give error**

**Integer iRef = 4;**

**switch (iRef) {**

**case iFour:**

**System.out.println("It's OK.");**

**case 1:**

**case iLoc:**

**case 2 \* iLoc:**

**System.out.println("I am not OK");**

**default:**

**System.out.println("you are OK");**

**}**

**}**

**}**

**Fail to compilation**

**Q.3 public class Main {**

**public static void main(String[] args) {**

**int counter = 0;**

**l1:**

**for(int i =0; i<10; i++){**

**l2:**

**int j = 0;// this line give error;**

**while (j++ < 10) {// bcoz in label y can not**

**if(j > i ) break l2;//declare**

**if(j == i){**

**counter++;**

**continue l1; } } }**

**System.out.println(counter); } }**

**Q.4**

**public class Q275d {**

**private static int a;**

**private int b;**

**public Q275d(){**

**int c;**

**c=a;**

**a++;**

**b +=c;**

**a -= b;**

**}**

**public static void main(String[] args) {**

**new Q275d();//this code run suceessfully but not print anything**

**} }**