Question 1:

Write a Java program to check whether the given number is odd or even

Week 4

import java.util.Scanner;

public class One {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        double number = scan.nextDouble();

        scan.close();

        if (number % 1 != 0) {

            System.out.println("The number is not an integer, so it cannot be even or odd.");

        } else {

            int num = (int) number;

            if (num % 2 == 0) {

                System.out.println(num + " is even.");

            } else {

                System.out.println(num + " is odd.");

            }

        }

    }

}

Code:

PS D:\Uni Material\LAB\sem 3\Week 4> javac One.java

PS D:\Uni Material\LAB\sem 3\Week 4> java One

Enter a number: 46

46 is even.

PS D:\Uni Material\LAB\sem 3\Week 4>

Output:

Question 2: 1

Write a Java program to find the largest number among the three numbers.

import java.util.Scanner;

public class Two {

public static void main(String[] args) {

Scanner scan = new Scanner(System.in);

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

double num1 = scan.nextDouble();

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

double num2 = scan.nextDouble();

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

double num3 = scan.nextDouble();

double largest = Math.max(Math.max(num1, num2), num3);

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

scan.close();

}

}

Code:

Output:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Two.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Two

Enter first number: 45

Enter second number: -0.456

Enter third number: 1.78

The largest number is: 45.0

PS D:\Uni Material\LAB\sem 3\Week 4>

Write a Java program that takes a number as input and prints its multiplication table up to 10

Question 3:

Output:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Three.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Three

Enter a number: 17

Multiplication Table of 17:

17 x 1 = 17

17 x 2 = 34

17 x 3 = 51

17 x 4 = 68

17 x 5 = 85

17 x 6 = 102

17 x 7 = 119

17 x 8 = 136

17 x 9 = 153

17 x 10 = 170

PS D:\Uni Material\LAB\sem 3\Week 4>

import java.util.Scanner;

public class Three {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        int number = scan.nextInt();

        System.out.println("Multiplication Table of " + number + ":");

        for (int i = 1; i <= 10; i++)

            System.out.println(number + " x " + i + " = " + (number \* i));

        scan.close();

    }

}

Code:

Question 4:

Write a Java program to calculate the sum of following series: 1 + 2 + 3 + 4 + .......... + N

import java.util.Scanner;

public class Four {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

        System.out.print("Enter the value of N: ");

        int N = scan.nextInt();

        int sum = 0;

        for (int i = 1; i <= N; i++)

            sum += i;

        System.out.println("Sum of the series 1 + 2 + ... + " + N + " is: " + sum);

        scan.close();

    }

}

Code:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Four.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Four

Enter the value of N: 96

Sum of the series 1 + 2 + ... + 96 is: 4656

PS D:\Uni Material\LAB\sem 3\Week 4>

Output:

Question 5:

Write a Java program to take a number, divide it by 2 and print the result until the number becomes less than 10

import java.util.Scanner;

public class Five {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        int number = scan.nextInt();

        if (number < 10)

            System.out.println("Number is less than 10, please enter more than 10");

        while (number >= 10) {

            System.out.println(number + " / 2 = " + (number / 2));

            number = number / 2;

        }

        scan.close();

    }

}

Code:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Five.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Five

Enter a number: 89

89 / 2 = 44

44 / 2 = 22

22 / 2 = 11

11 / 2 = 5

PS D:\Uni Material\LAB\sem 3\Week 4>

Output:

Write a Java program to check whether a given character is a vowel or consonant.

Question 6:

Optional

import java.util.Scanner;

public class Six {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        char ch = scan.next().charAt(0);

        if (!Character.isLetter(ch))

            System.out.println("Invalid input. Please enter an alphabet character.");

        else if ("aeiouAEIOU".indexOf(ch) != -1)

            System.out.println(ch + " is Vowel");

        else

            System.out.println(ch + " is Consonant");

        scan.close();

    }

}

Code:

Output:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Six.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Six

Enter a character: O

O is Vowel

PS D:\Uni Material\LAB\sem 3\Week 4>

Write a Java program to find the smallest number among four given numbers.

Question 7:

import java.util.Scanner;

public class Seven {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        double num1 = scan.nextDouble();

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

        double num2 = scan.nextDouble();

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

        double num3 = scan.nextDouble();

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

        double num4 = scan.nextDouble();

        double smallest = Math.min(Math.min(num1, num2), Math.min(num3, num4));

        System.out.printf("The smallest number is: %.2f", smallest);

        scan.close();

    }

}

PS D:\Uni Material\LAB\sem 3\Week 4> javac Seven.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Seven

Enter first number: -67

Enter second number: 0.289

Enter third number: 56.89

Enter fourth number: 00123

The smallest number is: -67.00

PS D:\Uni Material\LAB\sem 3\Week 4>

Output:

Code:

Write a Java program to calculate the sum of all even numbers from 1 up to a given number N.

Question 8:

import java.util.Scanner;

public class Eight {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

        System.out.print("Enter the value of N: ");

        int N = scan.nextInt();

        int sum = 0;

        for (int i = 2; i <= N; i += 2)

            sum += i;

        System.out.println("Sum of all even numbers from 1 to " + N + " is: " + sum);

        scan.close();

    }

}

Code:

Output:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Eight.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Eight

Enter the value of N: 89

Sum of all even numbers from 1 to 89 is: 1980

PS D:\Uni Material\LAB\sem 3\Week 4>

Question 9:

Write a Java program to check whether a given year is a leap year or not

import java.util.Scanner;

public class Nine {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        int year = scan.nextInt();

        if ((year % 4 == 0 && year % 100 != 0) || (year % 400 == 0))

            System.out.println(year + " is a Leap Year.");

        else

            System.out.println(year + " is not a Leap Year.");

        scan.close();

    }

}

Code:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Nine.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Nine

Enter a year: 2076

2076 is a Leap Year.

PS D:\Uni Material\LAB\sem 3\Week 4>

Output:

Output:

Write a Java program that takes a number as input and prints all its factors

Question 10:

Output:

PS D:\Uni Material\LAB\sem 3\Week 4> javac Ten.java

PS D:\Uni Material\LAB\sem 3\Week 4> java Ten

Enter a number: 17

Factors of 17 are: 1 17

PS D:\Uni Material\LAB\sem 3\Week 4>

import java.util.Scanner;

public class Ten {

    public static void main(String[] args) {

        Scanner scan = new Scanner(System.in);

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

        int number = scan.nextInt();

        System.out.println("Factors of " + number + " are:");

        for (int i = 1; i <= number; i++) {

            if (number % i == 0)

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

        }

        scan.close();

    }

}

Code: