**Experiment: 1**

PART A

(PART A: TO BE REFERRED BY STUDENTS)

**Aim:** **To study the fundamentals in JAVA**

**Learning Outcomes: The learner would be able to**

1. Understand the syntax and semantics of JAVA programming language
2. Compile and execute codes using JDK and command prompt
3. Understand the fundamentals in a “Hello World” program in JAVA and execute it
4. Understand the concept of datatypes, variables, literals, operators, constants, identifiers used in JAVA
5. Understand to give input from keyboard in JAVA

**Theory:**

**Tasks:**

1. Write a Java program that takes two integers as input and prints the sum of the two numbers.
2. Write a Java program that takes two integers as input, swaps them and prints the swapped values.
3. Write a Java program that swaps the values of two variables without using a third variable.
4. Write a Java program that accepts a student’s name, age, phone number (10 digits) and marks in 3 subjects and then prints all the information of the student, along with his/her average marks.
5. Write a Java program that takes an integer as input and checks whether the number is even or odd.
6. Write a Java program that takes an integer n as input and prints the multiplication table for that number up to 10.
7. Write a Java program that takes an integer as input and checks whether the number is positive, negative, or zero.
8. Write a Program to Print the ASCII Value of a Character.
9. Write a Program to find the size of various data types in JAVA.
10. Write a program to show type conversion in various datatypes in JAVA.

**PART B**

(PART B: TO BE COMPLETED BY STUDENTS)

Students must execute all the tasks in Experiment-1 and copy paste the code, along with the snapshot of the output in Part-B. Upload and Submit the Part-B in soft copy on the portal. The filename should be **PPS\_batch\_rollno\_experimentno Example: PPS\_A1\_A001\_P1**

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| --- | --- |
| **Roll No.: C126** | **Name: Rushabh Shah** |
| **Prog/Yr/Sem: 8th Sem** | **Batch: 2021-2027** |
| **Date of Experiment: 11-01-2025** | **Date of Submission:** |

Q1.

import java.util.Scanner;

public class q1

{

    public static void main(String[]args)

    {

        Scanner sc = new Scanner(System.in);

    int a = sc.nextInt();

    int b = sc.nextInt();

    System.out.println(a+b);

    }

}

Q2.

import java.util.Scanner;

public class q2 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

    int a = sc.nextInt();

    int b = sc.nextInt();

    System.out.print("a and b are: ");

    System.out.println(a+" "+b);

    int c = a;

    a = b;

    b = c;

    System.out.print("a and b are: ");

    System.out.print(a+" "+b);

    }

}

Q3.

import java.util.Scanner;

public class q3 {

    public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    int a = sc.nextInt();

    int b = sc.nextInt();

    System.out.print("a and b are: ");

    System.out.println(a+" "+b);

    a = a+b;

    b = a-b;

    a = a-b;

    System.out.print("a and b are: ");

    System.out.print(a+" "+b);

    }

}

Q4.

import java.util.Scanner;

public class q4 {

    public static void main(String[]args)

    {

    Scanner sc = new Scanner(System.in);

    String name = sc.nextLine();

    int age = sc.nextInt();

    long number = sc.nextLong();

    int m1 = sc.nextInt();

    int m2 = sc.nextInt();

    int m3 = sc.nextInt();

    System.out.println(name+" "+age+" "+number);

    int avg = (m1+m2+m3)/3;

    System.out.print("Average Marks: ");

    System.out.print(avg);

    }

}

Q5.

import java.util.Scanner;

public class q5 {

    public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    int num = sc.nextInt();

    if(num%2==0)

    {

        System.out.println("Even");

    }

    else

    {

        System.out.println("Odd");

    }

    }

}

Q6.

import java.util.Scanner;

public class q6 {

    public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    int n = sc.nextInt();

    for(int i = 1; i<=10; i++)

    {

        System.out.print(n + " x " + i + " = ");

        System.out.println(n\*i);

    }

}

}

Q7.

import java.util.Scanner;

public class q7 {

    public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    int n = sc.nextInt();

    if(n>0)

    {

        System.out.println("Positive");

    }

    if(n<0)

    {

        System.out.println("Negative");

    }

    if(n==0)

    {

        System.out.println("Is Zero");

    }

}

}

Q8.

import java.util.Scanner;

public class q8 {

    public static void main(String[] args) {

    Scanner sc = new Scanner(System.in);

    char c = sc.next().charAt(0);

    int ch = c;

    System.out.println(ch);

    }

}

Q9.

public class q9 {

    public static void main(String args[])

    {

        System.out.println("1 Byte " + Byte.SIZE);

        System.out.println("2 Short " + Short.SIZE);

        System.out.println("3 Integer " + Integer.SIZE);

        System.out.println("4 Float " + Float.SIZE);

        System.out.println("5 Long " + Long.SIZE );

        System.out.println("6 Double " + Double.SIZE);

        System.out.println("7 Character " + Character.SIZE);

    }

}

Q10.

import java.util.Scanner;

public class q10 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.print("Enter an integer value: ");

        int intValue = sc.nextInt();

        float floatValue = (float) intValue;

        System.out.println("Int to Float: " + floatValue);

        System.out.print("Enter a float value: ");

        floatValue = sc.nextFloat();

        int intFromFloat = (int) floatValue;

        System.out.println("Float to Int: " + intFromFloat);

        System.out.print("Enter an integer to convert to String: ");

        int intToString = sc.nextInt();

        String stringFromInt = Integer.toString(intToString);

        System.out.println("Int to String: " + stringFromInt);

    }

}

OUTPUT





