**DAY-1**

**1.Type Conversion Challenge**

**Problem:**

Write a Java program that accepts an integer, a float, and a character from the user.

Perform the following operations:

* + Convert the integer to a float and add it to the float input.
  + Convert the character to its ASCII value and add it to the integer.
  + Display the results with proper data type usage.

PROGRAM:

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc =new Scanner(System.in);

int a=sc.nextInt();

char b=sc.next().charAt(0);;

float c=sc.nextFloat();

float convf=(float)a;

System.out.println("The sum of two float is "+ (c+convf));

int convc=Character.getNumericValue(b);

System.out.println("The sum of character value and a integer is "+ (a+convc));

}

}

**2.Arithmetic Expression Evaluator**

**Problem:**

Write a program that takes three numbers from the user: two integers and one double.

Perform and display the results of the following:

* + Addition, Subtraction, Multiplication, and Division between the integers.
  + Multiply the result of the addition with the double value.
  + Ensure proper type casting is used wherever necessary.

PROGRAM:

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc =new Scanner(System.in);

int a=sc.nextInt();

int b=sc.nextInt();

double c=sc.nextDouble();

int add=a+b;

System.out.println("The sub of two int is "+ (a-b));

System.out.println("The multiplication of two int is "+ (a\*b));

System.out.println("The division of two int is "+ (a/b));

System.out.println("The multiplication of int and double is "+ (add\*c));

}

}

**3.Bitwise Operator Experiment**

**Problem:**

Create a program that reads two integer numbers from the user. Perform the following bitwise operations and print the results:

* + AND
  + OR
  + XOR
  + Left Shift (both numbers by 2 bits)
  + Right Shift (both numbers by 2 bits)

PROGRAM:

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc =new Scanner(System.in);

int a=sc.nextInt();

int b=sc.nextInt();

System.out.println("The AND of two int "+ (a & b));

System.out.println("The OR of two int is "+ (a | b));

System.out.println("The XOR of two int is "+ (a ^ b));

System.out.println("The left shift of a "+ (a<<2) +" The left shift of b "+ (b<<2) );

System.out.println("The right shift of a "+ (a>>2) +" The right shift of b "+ (b>>2) );

}

}