**1. Primitive Data Types**

**Task:** Create a program that accepts age, height, and weight of a person and prints them with

appropriate data types.

**Sample Input:**

Age: 25

Height: 5.9

Weight: 68.5

**Sample Output:**

Age: 25

Height: 5.9

Weight: 68.5

**Code:**

Package Day2;

import java.util.Scanner;

public class Task1{

public static void main(String[]args){

Scanner sc = new Scanner(System.in);

System.out.println(“Enter your age:”);

int age = sc.nextInt();

System.out.println(“Enter your height:”);

double height = sc.nextDouble();

System.out.println(“Enter your weight:”);

double weight = sc.nextDouble();

System.out.println(“\n Person Information”);

System.out.println(“Age: “ + age);

System.out.println(“Height: “ + height);

System.out.println(“Weight: “+ weight);

sc.close();

}

}

**2. Variables**

**Task:** Declare and initialize different types of variables to store a student’s information: ID, name,

marks, and grade. Print them.

**Sample Input:**

ID: 101

Name: Arun

Marks: 89.5

Grade: A

**Sample Output:**

Student ID: 101

Name: Arun

Marks: 89.5

Grade: A

**Code:**

public class Task2{

public static void main(String[]args){

int id = 101;

String name = “Alice”;

double marks = 89.5;

char grade = ‘A’;

System.out.println(“Student ID: “ + id);

System.out.println(“Name: “ + name);

System.out.println(“Marks: “ + marks);

System.out.println(“Grade: “ + grade);

}

}

**3. Operators**

**Task:** Accept two numbers and perform arithmetic, relational, and logical operations on them.

**Sample Input:**

Number1: 10

Number2: 20

**Sample Output:**

Addition: 30

Greater number: 20

Are both positive? True

**Code:**

package Day2;

import java.util.Scanner;

public class Task3{

public static void main(String[]args){

Scanner sc = new Scanner(System.in);

System.out.println(“Enter Number1: “);

int number1 = sc.nextInt();

System.out.println(“Enter Number2: “);

int number2 = sc.nextInt();

int add = number1 + number2;

int greater = (number1>number2)? number1:number2;

boolean areBothPositive = (number1>0&&number2>0);

System.out.println(“Addition: “ + add);

System.out.println(“Greater number: “ + greater);

System.out.println(“Are both positive?” + areBothPositive);

sc.close();

}

}

**4. String Concatenation**

**Task:** Create a greeting message using first name and last name entered by the user.

**Sample Input:**

First Name: Ravi

Last Name: Kumar

**Sample Output:**

Hello, Ravi Kumar! Welcome to the system.

**Code:**

package Day2;

import java.util.Scanner;

public class Task4 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("First Name: ");

String firstName = sc.nextLine();

System.out.print("Last Name: ");

String lastName = sc.nextLine();

System.out.println("Hello, " + firstName + " " + lastName + "! Welcome to the system.");

sc.close();

}

}

**5. StringBuilder**

**Task:** Accept a sentence and reverse it using StringBuilder.

**Sample Input:**

Input: Hello Java Learners

**Sample Output:**

Original: Hello Java Learners

Reversed: srenraeL avaJ olleH

**Code:**

package Day2;

import java.util.Scanner;

public class Task5 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Input: ");

String str = sc.nextLine();

StringBuilder sb = new StringBuilder(str);

sb.reverse();

System.out.println("Original: " + str);

System.out.println("Reversed: " + sb.toString());

sc.close();

}

}

**6. String API**

**Task:** Count how many times a specific character appears in a string.

**Sample Input:**

String: banana

Character: a

**Sample Output:**

Character 'a' appears 3 times.

**Code:**

package Day2;

import java.util.Scanner;

public class Task6 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("String: ");

String str = sc.nextLine();

System.out.print("Character: ");

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

int count = 0;

for (int i = 0; i < str.length(); i++) {

if (str.charAt(i) ==c) {

count++;

}

}

System.out.println("\nCharacter '" + c + "' appears " + count + " times.");

sc.close();

}

}

**7. Date, Time, and Numeric Objects**

**Task:** Display the current date and format it as DD-MM-YYYY. Also, show a formatted currency

value.

**Sample Input:**

Date: [current system date]

Amount: 12345.678

**Sample Output:**

Current Date: 20-07-2025

Formatted Amount: ₹12,345.68

**Code:**

package Day2;

import java.time.LocalDate;

import java.time.format.DateTimeFormatter;

import java.text.NumberFormat;

import java.util.Locale;

public class Task7{

public static void main(String[] args){

LocalDate today = LocalDate.now();

DateTimeFormatter dateFormat = DateTimeFormatter.ofPattern("dd-MM-yyyy");

String formattedDate = dateFormat.format(today);

double amount = 12345.678;

Local india = new Locale(“en”, “IN”);

NumberFormat currencyFormatter = NumberFormat.getCurrencyInstance(india);

String formattedAmount = currencyFormatter.format(amount);

System.out.println("Current Date: " + formattedDate);

System.out.println("Formatted Amount: " + formattedAmount);

}

}

**8. Flow Control**

**Task:** Based on a number entered, print whether it's positive, negative, or zero.

**Sample Input:**

Number: -5

**Sample Output:**

The number is negative.

**Code:**

package Day2;

import java.util.Scanner;

public class Task8 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Number: ");

int number = sc.nextInt();

if (number > 0) {

System.out.println("The number is positive.");

} else if (number < 0) {

System.out.println("The number is negative.");

} else {

System.out.println("The number is zero.");

}

sc.close();

}

}

**9. Conditions**

**Task:** Accept marks and display the grade using if-else.

**Sample Input:**

Marks: 76

**Sample Output:**

Grade: B

**Code:**

package Day2;

import java.util.Scanner;

public class Task9 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

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

int marks = sc.nextInt();

String grade;

if (marks >= 90) {

grade = "A+";

} else if (marks >= 80) {

grade = "A";

} else if (marks >= 70) {

grade = "B";

} else if (marks >= 60) {

grade = "C";

} else if (marks >= 50) {

grade = "D";

} else {

grade = "F";

}

System.out.println("Grade: " + grade);

sc.close()}}

**10. Switch**

**Task:** Build a simple calculator using switch to perform operations (+, -, \*, /).

**Sample Input:**

Number1: 10

Number2: 5

Operation: \*

**Sample Output:**

Result: 50

**Code:**

package Day2;

import java.util.Scanner;

public class SimpleCalculator {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Number1: ");

double num1 = sc.nextDouble();

System.out.print("Number2: ");

double num2 = sc.nextDouble();

System.out.print("Operation (+, -, \*, /): ");

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

double result;

switch (operation) {

case '+':

result = num1 + num2;

System.out.println("Result: " + result);

break;

case '-':

result = num1 - num2;

System.out.println("Result: " + result);

break;

case '\*':

result = num1 \* num2;

System.out.println("Result: " + result);

break;

case '/':

if (num2 != 0) {

result = num1 / num2;

System.out.println("Result: " + result);

} else {

System.out.println("Error: Division by zero is not allowed.");

}

break;

default:

System.out.println("Invalid operation.");

}

sc.close();

}

}

**11. Loops and Branching**

**Task:** Print the first N even numbers using a loop.

**Sample Input:**

N = 5

**Sample Output:**

0 2 4 6 8

**Code:**

package Day2;

import java.util.Scanner;

public class Task11 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("N = ");

int n = sc.nextInt();

for (int i = 0; i < n; i++) {

System.out.print((i \* 2) + " ");

}

sc.close();

}

}

**12. Arrays**

**Task:** Accept 5 numbers, store them in an array, and display their average.

**Sample Input:**

Numbers: 10, 20, 30, 40, 50

**Sample Output:**

Average: 30.0

**Code:**

package Day2;

import java.util.Scanner;

public class Task12 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int[] numbers = new int[5];

int sum = 0;

System.out.println("Enter 5 numbers:");

for (int i = 0; i < 5; i++) {

numbers[i] = sc.nextInt();

sum += numbers[i];

}

double average = sum / 5.0;

System.out.println("Average: " + average);

sc.close();

}

}

**13. Enum**

**Task:** Create an enum for days of the week. Print a message depending on the day.

**Sample Input:**

Day: MONDAY

**Sample Output:**

Start of the work week!

**Code:**

package Day2;

import java.util.Scanner;

public class Task13 {

enum Day {

MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY

}

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Day: ");

String input = sc.next().toUpperCase();

try {

Day day = Day.valueOf(input);

switch (day) {

case MONDAY:

System.out.println("Start of the work week!");

break;

case FRIDAY:

System.out.println("Almost the weekend!");

break;

case SATURDAY:

case SUNDAY:

System.out.println("It's the weekend!");

break;

default:

System.out.println("It's a weekday.");

break;

}

} catch (IllegalArgumentException e) {

System.out.println("Invalid day entered.");

}

sc.close();

}

}

**14. OOPs Concepts**

**Task:** Create a Student class with fields for name and marks. Create an object and display its

data.

**Sample Input:**

Name: Riya

Marks: 87

**Sample Output:**

Student Name: Riya

Marks: 87

**Code:**

package Day2;

public class Task14{

int id;

String name;

Student(int I, String n){

id = I;

name = n;

}

void display(){

System.out.println(“id: ” + id);

System.out.println(“name: “ + name);

}

public static void main(String[]args){

Student s1 = new Student(71,”Riya”);

s1.display();

}

}

**15. Inheritance**

**Task:** Create a class Employee and a subclass Manager that extends Employee and adds

department information.

**Sample Input:**

Name: Raj

Salary: 50000

Department: Sales

**Sample Output:**

Name: Raj

Salary: 50000

Department: Sales

**Code:**

package Day2;

import java.util.Scanner;

class Employee {

String name;

double salary;

Employee(String name, double salary) {

this.name = name;

this.salary = salary;

}

void display() {

System.out.println("Name: " + name);

System.out.println("Salary: " + salary);

}

}

class Manager extends Employee {

String department;

Manager(String name, double salary, String department) {

super(name, salary); // Call superclass constructor

this.department = department;

}

@Override

void display() {

super.display(); // Display name and salary

System.out.println("Department: " + department);

}

}

public class InheritanceDemo {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

System.out.print("Name: ");

String name = sc.nextLine();

System.out.print("Salary: ");

double salary = sc.nextDouble();

sc.nextLine();

System.out.print("Department: ");

String department = sc.nextLine();

Manager manager = new Manager(name, salary, department);

manager.display();

sc.close();

}

}