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

```
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

```
public class Task2 {
public static void main(String[] args) {
                        int id = 101;
                        String name = "Arun";
                        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

```
package Day2;
import java.util.Scanner;
public class Task3 {

	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);

		System.out.print("Enter Number1: ");
		int number1 = sc.nextInt();

		System.out.print("Enter Number2: ");
		int number2 = sc.nextInt();
		int add = number1 + number2; //airthametic
		int greater = (number1 > number2) ? number1 : number2; //relational
		boolean areBothPositive = (number1 > 0 && number2 > 0); //logical
		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.

```
package Day2;
import java.util.Scanner;
public class Task4 {
	public static void main(String[] args) {

		  Scanner sc = new Scanner(System.in);
		System.out.println("Enter your firstname");
		String firstName= sc.nextLine();
		System.out.println("Enter your lastname");
		String lastName =sc.nextLine();;
		System.out.println("HELLO "+firstName+" "+lastName +"! WELCOME TO THE SYSTEM");

	}
}
```

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

```
package Day2;
```

```
import java.util.Scanner;
public class Task5 {

	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the input");
		String str = sc.nextLine();

		StringBuilder sb = new StringBuilder(str);
		sb.reverse();

		System.out.println("original string:" + str);
		System.out.println("reversedstring:"+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.

```
package Day2;
import java.util.Scanner;
public class Task6 {
	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter a string:");
		String str = sc.nextLine();
```

```
                System.out.println("Enter a 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

```
package Day2;
import java.text.NumberFormat;
import java.time.LocalDate;
import java.time.format.DateTimeFormatter;
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;
		Locale 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.

```
package Day2;


import java.util.Scanner;


public class Task8 {


	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);



	System.out.print("Enter a 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

```
package Day2;


import java.util.Scanner;


public class Task9 {


	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter your marks");
int marks = sc.nextInt();


if (marks >= 90 && marks <= 100) {
   System.out.println("Grade: A");
} else if (marks >= 80) {
   System.out.println("Grade: B+");
} else if (marks >= 70) {
   System.out.println("Grade: B");
} else if (marks >= 60) {
   System.out.println("Grade: C");
} else if (marks >= 50) {
   System.out.println("Grade: D");
}else
		System.out.println("Invalid");
		}
}
```

10. Switch

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

Sample Input:

Number1: 10

Number2: 5

Operation: *

Sample Output:

```
package Day2;


import java.util.Scanner;
public class Task10 {
	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
	    // Accept two numbers
	    System.out.print("Enter Number1: ");
	    double num1 = sc.nextDouble();
	    System.out.print("Enter Number2: ");
	    double num2 = sc.nextDouble();
	    System.out.print("Enter operation (+, -, *, /): ");
	    char op = sc.next().charAt(0);
	    double result;
	    switch (op) {
	       case '+':
	          result = num1 + num2;
	          System.out.println("\nResult: " + result);
	          break;

	       case '-':
	          result = num1 - num2;
	          System.out.println("\nResult: " + result);
```

```
                break;


            case '*':
                result = num1 * num2;
                System.out.println("\nResult: " + result);
                break;


            case '/':
                    result = num1 / num2;
                    System.out.println("\nResult: " + result);
                Break;
            default:
                System.out.println("\nInvalid 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

```
package Day2;
import java.util.Scanner;
public class Task11 {
    public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);
        System.out.print("Enter value of N: ");
        int n = sc.nextInt();
        System.out.println("\nFirst " + n + " even numbers:");
        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

```
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();
```

```
    } }
```

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

```
package Day2;

public class Student {
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

```
package Day2;
class Employee{
	String name;
	double salary;
}
class Manager extends Employee{
	String Department;
}
public class main {
	public static void main (String[] args) {
Manager mgr = new Manager();
mgr.name = "Raj";
mgr.salary = 50000;
mgr.Department = "Sales";
System.out.println("Name: " + mgr.name);
System.out.println("Salary: " + mgr.salary);
System.out.println("Department: " + mgr.Department);
```

```
        }
    }
```