Day-2 Java Assignment

23/07/2025 **Sanjay R**

Task 1: Primitive Data Types

Description:

Create a program that accepts age, height, and weight of a person and prints them with appropriate data types.

Program

```
package daillyAssignments;

import java.util.Scanner;

public class D3Q1_PrimitiveDataTypes {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.print("Enter age: ");

        int age = sc.nextInt(); // integer type

        System.out.print("Enter height: ");

        double height = sc.nextDouble(); // decimal type

        System.out.print("Enter weight: ");

        double weight = sc.nextDouble(); // decimal type

        System.out.println("Age: " + age);

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

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

        sc.close();

    }

}
```

Task 2: Variables

Description: Store and print a student's ID, name, marks, and grade.

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q2_Variables {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter Student ID: ");
        int id = sc.nextInt();
        sc.nextLine();
        System.out.print("Enter Name: ");
        String name = sc.nextLine();
        System.out.print("Enter Marks: ");
        double marks = sc.nextDouble();
        System.out.print("Enter Grade: ");
        char grade = sc.next().charAt(0);
        System.out.println("Student ID: " + id);
        System.out.println("Name: " + name);
        System.out.println("Marks: " + marks);
        System.out.println("Grade: " + grade);
        sc.close();
    }
}
```

Task 3: Operators

Description: Perform arithmetic, relational, and logical operations on two numbers.

```
package dailyAssigments;
import java.util.Scanner;
```

```
public class D3Q3_OperatorDemo {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter first number: ");
        int a = sc.nextInt();
        System.out.print("Enter second number: ");
        int b = sc.nextInt();
        System.out.println("Addition: " + (a + b));
        System.out.println("Greater number: " + (a > b ? a : b));
        System.out.println("Are both positive? " + (a > 0 && b > 0));
        sc.close();
    }
}
```

Task 4: String Concatenation

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

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q4_StringConcat {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter First Name: ");
        String fname = sc.nextLine();
        System.out.print("Enter Last Name: ");
        String lname = sc.nextLine();
        System.out.println("Hello, " + fname + " " + lname + "! Welcome to the system");
        sc.close();
```

```
    }
}
```

Task 5: StringBuilder (Reverse)

Task: Accept a sentence and reverse it using StringBuilder

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q5_StringBuilderReverse {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a sentence: ");
        String input = sc.nextLine();
        StringBuilder sb = new StringBuilder(input);
        System.out.println("Original: " + input);
        System.out.println("Reversed: " + sb.reverse());
        sc.close();
    }
}
```

Task 6: String API (Character Count)

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

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q6_CharCount {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
```

```
        System.out.print("Enter a string: ");
        String str = sc.nextLine();
        System.out.print("Enter character to count: ");
        char target = sc.next().charAt(0);
        int count = 0;
        for (char c : str.toCharArray()) {
            if (c == target) count++;
        }

        System.out.println("Character '" + target + "' appears " + count + " times.");
        sc.close();
    }
}
```

Task 7: Date and Currency Formatting

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

Program

```
package dailyAssigments;
import java.text.NumberFormat;
import java.time.LocalDate;
import java.time.format.DateTimeFormatter;
import java.util.Locale;
public class D3Q7_DateCurrency {
    public static void main(String[] args) {
        LocalDate today = LocalDate.now();
        DateTimeFormatter formatter = DateTimeFormatter.ofPattern("dd-MM-yyyy");
        System.out.println("Current Date: " + today.format(formatter));
```

```
        double amount = 12345.678;
        NumberFormat currencyFormatter = NumberFormat.getCurrencyInstance(new
Locale("en", "IN"));
        System.out.println("Formatted Amount: " + currencyFormatter.format(amount));
    }
}
```

Task 8: Flow Control (Positive/Negative/Zero)

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

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q8_NumberCheck {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int num = sc.nextInt();
        if (num > 0)
            System.out.println("The number is positive.");
        else if (num < 0)
            System.out.println("The number is negative.");
        else
            System.out.println("The number is zero.");
        sc.close();
    }
}
```

Task 9: Conditions (Grade using if-else)

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

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q9_GradeCheck {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      System.out.print("Enter marks: ");
      int marks = sc.nextInt();
      if (marks >= 90)
         System.out.println("Grade: A");
      else if (marks >= 75)
         System.out.println("Grade: B");
      else if (marks >= 60)
         System.out.println("Grade: C");
      else if (marks >= 40)
         System.out.println("Grade: D");
      else
         System.out.println("Grade: F");
      sc.close();
   }
}
```

Task 10: Switch (Simple Calculator)

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

Program

```
package dailyAssigments;
import java.util.Scanner;
```

```
public class D3Q10_Calculator {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter first number: ");
        double a = sc.nextDouble();
        System.out.print("Enter second number: ");
        double b = sc.nextDouble();
        System.out.print("Enter operation (+, -, *, /): ");
        char op = sc.next().charAt(0);
        double result;
        switch (op) {
            case '+': result = a + b; break;
            case '-': result = a - b; break;
            case '*': result = a * b; break;
            case '/': result = b != 0 ? a / b : Double.NaN; break;
            default: System.out.println("Invalid operator"); return;
        }

        System.out.println("Result: " + result);
        sc.close();
    }
}
```

Task 11: Loops (First N even numbers)

Task: Print the first N even numbers using a loop

Program

```
package dailyAssigments;
import java.util.Scanner;
```

```
public class D3Q11_EvenNumbers {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter N: ");
        int n = sc.nextInt();
        for (int i = 0; i < n * 2; i += 2) {
            System.out.print(i + " ");
        }
        sc.close();
    }
}
```

Task 12: Arrays (Average of 5 numbers)

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

Program

```
package dailyAssigments;
import java.util.Scanner;
public class D3Q12_ArrayAverage {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int[] arr = new int[5];
        int sum = 0;
        System.out.println("Enter 5 numbers:");
        for (int i = 0; i < 5; i++) {
            arr[i] = sc.nextInt();
            sum += arr[i];
        }
        double avg = sum / 5.0;
```

```
        System.out.println("Average: " + avg);
        sc.close();
    }
}
```

Task 13: Enum (Days of Week)

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

Program

```
package dailyAssigments;
import java.util.Scanner;
enum Day {
    MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
}
public class D3Q13_EnumDemo {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter day (e.g., MONDAY): ");
        Day day = Day.valueOf(sc.next().toUpperCase());
        switch (day) {
            case MONDAY: System.out.println("Start of the work week!"); break;
            case FRIDAY: System.out.println("Almost weekend!"); break;
            case SUNDAY: System.out.println("Rest day!"); break;
            default: System.out.println("Regular weekday.");
        }
        sc.close();
    }
}
```

Task 14: OOP – Student Class

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

Program

```
package dailyAssigments;

import java.util.Scanner;

class Student {
   String name;
   int marks;
   Student(String name, int marks) {
      this.name = name;
      this.marks = marks;
   }
   void display() {
      System.out.println("Student Name: " + name);
      System.out.println("Marks: " + marks);
   }
}
public class D3Q14_StudentMain {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in);
      System.out.print("Enter name: ");
      String name = sc.nextLine();
      System.out.print("Enter marks: ");
      int marks = sc.nextInt();
      Student s = new Student(name, marks);
      s.display();
      sc.close();
```

```
    }
}
```

Task 15: Inheritance – Employee & Manager

Task: Create a class Employee and a subclass Manager that extends Employee and adds department information.

Program

```
package dailyAssigments;
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);
        this.department = department;
    }
    void showDetails() {
```

```
        display();
        System.out.println("Department: " + department);
    }
}
public class D3Q15_InheritanceDemo {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter name: ");
        String name = sc.nextLine();
        System.out.print("Enter salary: ");
        double salary = sc.nextDouble();
        sc.nextLine();
        System.out.print("Enter department: ");
        String dept = sc.nextLine();
        Manager m = new Manager(name, salary, dept);
        m.showDetails();
        sc.close();
    }
}
```