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 assignmentsjava2;
import java.util.Scanner;
public class task1 {
public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Age:");
                int age = sc.nextInt();
                System.out.println("Enter Height:");
                float Height = sc.nextFloat();
                System.out.println("Enter Weight:");
                double weight = sc.nextDouble();

                // displaying
                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 :

```
package assignmentsjava2;
import java.util.Scanner;
public class task2 {
public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter Id :");
                int Id = sc.nextInt();
                sc.nextLine();

                System.out.println("Enter Name :");
                String Name = sc.nextLine();

                System.out.println("Enter Marks :");
                float Marks = sc.nextFloat();

                System.out.println("Enter Grade :");
                char Grade = sc.next().charAt(0);
                // Displaying
```

```
                System.out.println("Student ID :"+Id);
                System.out.println("Name :"+Name);
                System.out.println("Marks :"+Marks);
                System.out.println("Grade :"+Grade);
                sc.close();
                }

    }
```

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 assignmentsjava2;

    import java.util.Scanner;

    public class task3 {

        public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);
            // take input
            System.out.println("Enter Number1:");
            int Number1 = sc.nextInt();
            System.out.println("Enter Number2:");
            int Number2 = sc.nextInt();

            // Arithmetic operation
            int sum = Number1+Number2;
            //Relational operation
            int greater = (Number1>Number2) ? Number1: Number2;
            //Logical operation
            boolean bothPositive = (Number1 >0) && (Number2>0);

            //displaying
            System.out.println("Addition :" +sum);
            System.out.println("Greater number :" +greater);
            System.out.println("Are both positive ? :" +bothPositive);
            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 assignmentsjava2;

import java.util.Scanner;

public class task4 {

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

		//Input
		System.out.println("Enter First Name:");
		String FirstName = sc.nextLine();
		System.out.println("Enter Last Name:");
		String LastName = sc.nextLine();
		//displaying
		System.out.println("\nHello, " + 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

```
package assignmentsjava2;
import java.util.Scanner;
public class task5 {

	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter a sentance :");
		String input = sc.nextLine();
		// Reversing
		StringBuilder reversed = new StringBuilder(input);
		reversed.reverse();
```

```
                System.out.println("\nOriginal :"+input);
                System.out.println("Reversed :"+ reversed.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 assignmentsjava2;

import java.util.Scanner;

public class task6 {

        public static void main(String[] args) {
                Scanner s = new Scanner(System.in);
                System.out.println("Enter string :");
                String input = s.nextLine();
                System.out.println("Enter the target character :");
                char targetchar = s.next().charAt(0);

                int count = 0;
                for(int i=0; i<input.length(); i++) {
                        if(input.charAt(i) == targetchar) {
                                count++;
                        }
                }

                System.out.println("\nCharacter" + targetchar +" appears"+ count+ "times");
                s.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 assignmentsjava2;

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 currentDate = LocalDate.now();
	DateTimeFormatter formatter = DateTimeFormatter.ofPattern("dd-MM-yyyy");
	String formattedDate = currentDate.format(formatter);

	double amount = 12345.678;
	NumberFormat currencyFormatter = NumberFormat.getCurrencyInstance(new
Locale("en", "IN"));
	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 assignmentsjava2;
import java.util.Scanner;

public class task8 {

	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter the number :");
		int Number = sc.nextInt();
		//condition
		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 assignmentsjava2;
import java.util.Scanner;

public class task9 {

	public static void main(String[] args) {
		Scanner sc = new Scanner(System.in);
		// Input marks
		System.out.println("Enter marks :");
		int marks = sc.nextInt();
		char grade;
		//Alloting grades
		 if (marks >= 90) {
		grade = 'A';
	} else if (marks >= 80) {
		grade = 'B';
	} else if (marks >= 70) {
		grade = 'C';
	} else if (marks >= 60) {
		grade = 'D';
	} else if (marks >= 50) {
```

```
            grade = 'E';
        } else {
            grade = 'F';
        }

            // output
            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

```
 package assignmentsjava2;

import java.util.Scanner;

public class task10 {

    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter number1 :");
        int number1 = s.nextInt();
        System.out.println("Enter number2 :");
        int number2 = s.nextInt();
        System.out.println("Enter operator :");
        char operation = s.next().charAt(0);
        double result;
        //switch
        switch (operation) {
        case '+' :
            result = number1+number2;
            System.out.println("Result: "+result);
            break;

        case '-' :
            result = number1-number2;
            System.out.println("Result: "+result);
            break;

        case '*' :
            result = number1*number2;
            System.out.println("Result: "+result);
            break;
```

```
                    case '/' :
                            result = number1/number2;
                            System.out.println("Result: "+result);
                       break;

                     default:
                             System.out.println("Invalid poperator");
                             s.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 assignmentsjava2;

import java.util.Scanner;

public class task11 {

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

                System.out.println("First"+ N + "even numbers :");
                for( int i=0; i < N; i++) {
                        System.out.println(2*i + " ");
                }
                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 assignmentsjava2;

import java.util.Scanner;

public class task12 {

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

		int[] numbers = new int[5]; // array with storage of 5 numbers
		int sum = 0;

		System.out.println("Enter 5 numbers :");
		for(int i = 0; i<5; i++)
		{
			numbers[i] = sc.nextInt();
			sum += numbers[i];
		}
		double avg = (double) sum/5;
		System.out.println("Average :" + avg);
		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!

```
package assignmentsjava2;
import java.util.Scanner;

public class task13 {

	enum Day {
    MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
  }



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

    System.out.print("Enter day (e.g., MONDAY): ");
    String input = scanner.next().toUpperCase();

    if (input.equals("MONDAY")) {
```

```
            System.out.println("Start of the work week!");
        } else if (input.equals("FRIDAY")) {
            System.out.println("Almost weekend!");
        } else if (input.equals("SATURDAY") || input.equals("SUNDAY")) {
            System.out.println("Enjoy your weekend!");
        } else if (input.equals("TUESDAY") || input.equals("WEDNESDAY") ||
input.equals("THURSDAY")) {
            System.out.println("Just another weekday.");
        } else {
            System.out.println("Invalid day.");
        }

        scanner.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 assignmentsjava2;
import java.util.Scanner;

class Student {
        String name;
        int marks;



    void display() {
        System.out.println("Student Name :" + name);
        System.out.println("Marks :" + marks);
    }
}
public class task14 {

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

                Student student = new Student(); // object is created

                System.out.println("Enter Student Name :" );// importing details
                student.name = s.nextLine();
                System.out.println("Enter marks :" );
                student.marks = s.nextInt();
```

```
                System.out.println();
                student.display();

                s.close();



        }

}
```

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

```
//class employee
package assignmentsjava2;

public class task15_employee {
        String name;
        double salary;
}

//class company
package assignmentsjava2;
import java.util.Scanner;

public class comapny {

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

    System.out.print("Enter Name: ");
    manager.name = sc.nextLine();

    System.out.print("Enter Salary: ");
    manager.salary = sc.nextDouble();

    sc.nextLine(); // consume leftover newline

    System.out.print("Enter Department: ");
    manager.department = sc.nextLine();
```

```
		System.out.println();
		manager.displayDetails();

		sc.close();

		}

	}
	//class Manager
	package assignmentsjava2;

	public class Manager  extends task15_employee {
		String department;

		void displayDetails() {
			System.out.println("Name : " + name);
			System.out.println("Salary : " + salary);
			System.out.println("Department : " + department);
		}

	}
```