Task 1: ODD OR EVEN

```
import java.util.Scanner;
public class OddOrEven {
   public class OddEven {
      public static void main(String[] args) {
         Scanner userInput = new Scanner(System.in);
         System.out.print("Enter a number: "); // Program ask for a number
         int number = userInput.nextInt();
         if (number % 2 == 0) { // Program determine if the number is odd or even
            System.out.println  ("Output: Even.");
         } else {
            System.out.println("Output: Odd.");
         }
         userInput.close(); // Program close the scanner
      }
   }
}
```

- The program starts by creating a Scanner object to read input from the user.
- It prompts the user to enter a number.
- The program uses the modulus operator (%) to determine if the number is odd or even.
- If the number is even (i.e., the remainder when divided by 2 is 0), it prints "Even."
- Otherwise, it prints "Odd."
- Finally, it closes the Scanner object.

Task 2: WHAT DAY?

```
import java.util.Scanner;

public class Days {

    public static void main(String[] args) { // WAP to input a number (1-7) and print the day of the week using switch case

        Scanner sc = new Scanner(System.in); // Create a Scanner object to read input from the user

        System.out.println("Enter the day number: "); //1-7

        int day = sc.nextInt();

        switch (day) {

            case 1: //case 1 is the day number

                System.out.println("Monday"); //Monday is the day name

                break;

            case 2: //case 2 is the day number

                System.out.println("Tuesday"); //Tuesday is the day name

                break;

            case 3: //case 3 is the day number

                System.out.println("Wednesday"); //Wednesday is the day name

                break;

            case 4: //case 4 is the day number

                System.out.println("Thursday"); //Thursday is the day name

                break;

            case 5: //case 5 is the day number

                System.out.println("Friday"); //Friday is the day name

                break;

            case 6: //case 6 is the day number

                System.out.println("Saturday"); //Saturday is the day name

                break;
```

```
case 7: //case 7 is the day number
            System.out.println("Sunday"); //Sunday is the day name
            break;
        default: //default is the day number
            System.out.println("Invalid day"); //Invalid day is the day name
    }
    sc.close();
  }
}
```

- The program starts by creating a Scanner object to read input from the user.
- It prompts the user to enter a number (1-7).
- The program uses a switch statement to determine the day of the week based on the input number.
- It prints the corresponding day name.
- If the input number is not between 1 and 7, it prints "Invalid day".
- Finally, it closes the Scanner object.

TASK 3: SUM OF ALL INTEGER

```
import java.util.Scanner;
public class SumOfList {
   public static void main(String[] args) {
      //input a number n and print the sum of first n natural numbers
      Scanner sc = new Scanner(System.in);
      System.out.print("Enter the number of integers to sum: "); //input
      int n = sc.nextInt();
      int sum = 0;
      //logic
      if (n <= 0) {
         System.out.println("Invalid input");
      } else {
         for (int i = 1; i <= n; i++) {
            sum += i;
         }
         System.out.println("Sum of the numbers is: " + sum); //output
      }
      sc.close();
   }
```

- The program starts by creating a Scanner object to read input from the user.
- It prompts the user to enter a number.
- The program initializes a sum variable to 0.
- It then enters a for loop that iterates from 1 to n.
- Inside the loop, it adds the current value of i to the sum.
- After the loop, it displays the result.
- Finally, it closes the Scanner object.

TASK 4: GUESS THE NUMBER

```
import java.util.Scanner;
import java.util.Random;
public class NumberGuess {
   public static void main(String[] args) {
      Scanner sc = new Scanner(System.in); //input
      Random rand = new Random(); //logic
      boolean playAgain = true;
      while (playAgain) { // while loop to play again
         int numberToGuess = rand.nextInt(100) + 1;
         int numberOfTries = 0;
         System.out.println("I'm thinking of a number between 1 and 100.");
         while (numberOfTries < 3) { //while loop to guess the number
            System.out.print("Enter your guess: ");
            int guess = sc.nextInt();
            numberOfTries++;
            if (guess == numberToGuess) { //if the guess is correct
               System.out.println("Congratulations! You've guessed the number in " + numberOfTries + " tries!");
            } else if (guess < numberToGuess) {
               System.out.println("Too low! Try again.");
            } else {
               System.out.println("Too high! Try again.");
            }
         }
         System.out.print("Do you want to play again? (yes/no): "); //output
         String playAgainResponse = sc.next().toLowerCase();
         playAgain = playAgainResponse.equals("yes") || playAgainResponse.equals("y");
      }
      System.out.println("Thanks for playing!");
      sc.close();
   }
}
```

- The program starts by creating a Scanner object to read input from the user.
- It also creates a Random object to generate random numbers.
- The program enters a while loop that continues until the user decides to stop playing.
- Inside the loop, it generates a random number between 1 and 100.
- It then enters another while loop that continues until the user has guessed the number or used up their three tries.
- Inside this loop, it prompts the user to enter a guess and increments the number of tries.

TASK 5: REVERSE ARRAY

```
import java.util.Scanner;
public class ReverseArray {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the number of elements in the array: ");
        int n = sc.nextInt();
        int[] array = new int[n];
        System.out.print("Enter the elements of the array:");
        for (int i = 0; i < n; i++) {
            array[i] = sc.nextInt();
        }
        int[] reversedArray = reverseArray(array);
        for (int i = 0; i < reversedArray.length; i++) {
            System.out.print(reversedArray[i] + " ");
        }
        sc.close();
    }
    public static int[] reverseArray(int[] array) {
        int[] reversedArray = new int[array.length];
        for (int i = 0; i < array.length; i++) {
            reversedArray[i] = array[array.length - i - 1];
        }
        return reversedArray;
    }
```

- The program starts by creating a Scanner object to read input from the user.
- It prompts the user to enter the number of elements in the array.
- The program creates an array of the specified size.
- It prompts the user to enter the elements of the array.
- The program then calls the reverseArray method to reverse the array.
- The reverseArray method creates a new array of the same size.
- It then enters a for loop that iterates through each element of the original array.