Task 1. Student Grade Tracker

Develop a program that allows a teacher to enter students' grades and compute their average, highest, and lowest scores. You can use arrays or ArrayLists to store the student data.

```
import java.util.ArrayList;
import java.util.Collections;
import java.util.Scanner;

public class codeAlpha_intern {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        ArrayList<Integer> grades = new ArrayList<>();

        System.out.println("Enter the number of
students:");
        int numberOfStudents = scanner.nextInt();

        for (int i = 0; i < numberOfStudents; i++) {
            System.out.println("Enter grade for student " + (i
+ 1) + ":");
            int grade = scanner.nextInt();
            grades.add(grade);
```

```
        }

        int sum = 0;
        for (int grade : grades) {
            sum += grade;
        }

        double average = (double) sum / grades.size();
        int highest = Collections.max(grades);
        int lowest = Collections.min(grades);

        System.out.println("Average grade: " + average);
        System.out.println("Highest grade: " + highest);
        System.out.println("Lowest grade: " + lowest);
    }
}
```

Task 2

```
import java.util.Scanner;

public class codeAlpha_intern {
    private static double balance = 0;

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

```
        boolean exit = false;

        while (!exit) {
            System.out.println("Welcome to the Simple
Banking Application");
            System.out.println("1. Deposit");
            System.out.println("2. Withdraw");
            System.out.println("3. Check Balance");
            System.out.println("4. Exit");
            System.out.print("Choose an option: ");
            int choice = scanner.nextInt();

            switch (choice) {
                case 1:
                    deposit(scanner);
                    break;
                case 2:
                    withdraw(scanner);
                    break;
                case 3:
                    checkBalance();
                    break;
                case 4:
                    exit = true;
```

```
                System.out.println("Thank you for using the
Simple Banking Application. Goodbye!");
                break;
            default:
                System.out.println("Invalid option. Please try
again.");
            }
        }
        scanner.close();
    }

    private static void deposit(Scanner scanner) {
        System.out.print("Enter amount to deposit: ");
        double amount = scanner.nextDouble();
        if (amount > 0) {
            balance += amount;
            System.out.println("Successfully deposited " +
amount);
        } else {
            System.out.println("Invalid amount. Please enter
a positive number.");
        }
    }
```

```
    private static void withdraw(Scanner scanner) {
        System.out.print("Enter amount to withdraw: ");
        double amount = scanner.nextDouble();
        if (amount > 0 && amount <= balance) {
            balance -= amount;
            System.out.println("Successfully withdrew " +
amount);
        } else {
            System.out.println("Invalid amount or insufficient
balance.");
        }
    }

    private static void checkBalance() {
        System.out.println("Your current balance is: " +
balance);
    }
}
```

Task 3

```
import java.util.Scanner;

public class codeAlpha_intern {
```

```
    private static double balance = 0;

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

        while (!exit) {
            System.out.println("Welcome to the Simple
Banking Application");
            System.out.println("1. Deposit");
            System.out.println("2. Withdraw");
            System.out.println("3. Check Balance");
            System.out.println("4. Exit");
            System.out.print("Choose an option: ");
            int choice = scanner.nextInt();

            switch (choice) {
                case 1:
                    deposit(scanner);
                    break;
                case 2:
                    withdraw(scanner);
                    break;
                case 3:
```

```
                checkBalance();
                break;
            case 4:
                exit = true;
                System.out.println("Thank you for using the
Simple Banking Application. Goodbye!");
                break;
            default:
                System.out.println("Invalid option. Please try
again.");
            }
        }
        scanner.close();
    }

    private static void deposit(Scanner scanner) {
        System.out.print("Enter amount to deposit: ");
        double amount = scanner.nextDouble();
        if (amount > 0) {
            balance += amount;
            System.out.println("Successfully deposited " +
amount);
        } else {
            System.out.println("Invalid amount. Please enter
```

```
a positive number.");
        }
    }

    private static void withdraw(Scanner scanner) {
        System.out.print("Enter amount to withdraw: ");
        double amount = scanner.nextDouble();
        if (amount > 0 && amount <= balance) {
            balance -= amount;
            System.out.println("Successfully withdrew " +
amount);
        } else {
            System.out.println("Invalid amount or insufficient
balance.");
        }
    }

    private static void checkBalance() {
        System.out.println("Your current balance is: " +
balance);
    }
}
```