Java-Student Grade Tracker

Program :

Import java.util.ArrayList;

Import java.util.Scanner;

Class Student {

Private String name;

Private double grade;

Public Student(String name, double grade) {

This.name = name;

This.grade = grade;

}

Public String getName() {

Return name;

}

Public double getGrade() {

Return grade;

}

}

Public class Main {

Private static ArrayList<Student> students = new ArrayList<>();

Public static void addStudent(String name, double grade) {

Students.add(new Student(name, grade));

}

Public static double calculateAverage() {

Double sum = 0;

For (Student s : students) {

Sum += s.getGrade();

}

Return students.size() > 0 ? sum / students.size() : 0;

}

Public static double getHighestGrade() {

Double max = Double.MIN\_VALUE;

For (Student s : students) {

If (s.getGrade() > max) {

Max = s.getGrade();

}

}

Return max;

}

Public static double getLowestGrade() {

Double min = Double.MAX\_VALUE;

For (Student s : students) {

If (s.getGrade() < min) {

Min = s.getGrade();

}

}

Return min;

}

Public static void displayReport() {

System.out.println(“\n--- Student Grade Report ---“);

For (Student s : students) {

System.out.println(“Name: “ + s.getName() + “, Grade: “ + s.getGrade());

}

System.out.printf(“Average Grade: %.2f%n”, calculateAverage());

System.out.printf(“Highest Grade: %.2f%n”, getHighestGrade());

System.out.printf(“Lowest Grade: %.2f%n”, getLowestGrade());

}

Public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

Int choice;

Do {

System.out.println(“\n===== Student Grade Tracker =====”);

System.out.println(“1. Add Student”);

System.out.println(“2. Display Report”);

System.out.println(“3. Exit”);

System.out.print(“Enter your choice: “);

Choice = sc.nextInt();

Sc.nextLine(); // consume newline

Switch (choice) {

Case 1:

System.out.print(“Enter student name: “);

String name = sc.nextLine();

System.out.print(“Enter student grade: “);

Double grade = sc.nextDouble();

addStudent(name, grade);

System.out.println(“✅ Student added successfully!”);

Break;

Case 2:

displayReport();

break;

case 3:

System.out.println(“👋 Exiting… Thank you!”);

Break;

Default:

System.out.println(“❌ Invalid choice. Try again.”);

}

} while (choice != 3);

Sc.close();

}

}