CLASS STUDENTGRADETRACKER  
  
class StudentGradeTracker {

int[] grades;

int studentCount;

StudentGradeTracker(int count) {

studentCount = count;

grades = new int[count];

}

void enterGrades() {

Scanner scanner = new Scanner(System.in);

System.out.println("Enter grades for " + studentCount + " students:");

for (int i = 0; i < studentCount; i++) {

System.out.print("Student " + (i + 1) + ": ");

grades[i] = scanner.nextInt();

}

}

int findHighest() {

int highest = grades[0];

for (int i = 1; i < studentCount; i++) {

if (grades[i] > highest) {

highest = grades[i];

}

}

return highest;

}

int findLowest() {

int lowest = grades[0];

for (int i = 1; i < studentCount; i++) {

if (grades[i] < lowest) {

lowest = grades[i];

}

}

return lowest;

}

double calculateAverage() {

int sum = 0;

for (int i = 0; i < studentCount; i++) {

sum += grades[i];

}

return (double) sum / studentCount;

}

String getGradeCategory(int grade) {

if (grade >= 90) {

return "A";

} else if (grade >= 80) {

return "B";

} else if (grade >= 70) {

return "C";

} else if (grade >= 60) {

return "D";

} else {

return "F";

}

}

void displayResults() {

int highestGrade = findHighest();

String highestGradeCategory = getGradeCategory(highestGrade);

int lowestGrade = findLowest();

String lowestGradeCategory = getGradeCategory(lowestGrade);

System.out.println("\nGrade Summary:");

System.out.println("Highest Grade: " + highestGrade + " (" + highestGradeCategory + ")");

System.out.println("Lowest Grade: " + lowestGrade + " (" + lowestGradeCategory + ")");

System.out.println("Average Grade: " + calculateAverage());

System.out.println("\nGrade Categories for Each Student:");

for (int i = 0; i < studentCount; i++) {

System.out.println("Student " + (i + 1) + ": " + grades[i] + " Grade: " + getGradeCategory(grades[i]));

}

}

}  
MAIN CLASS  
  
import java.util.Scanner;

class Main {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the number of students: ");

int count = scanner.nextInt();

StudentGradeTracker tracker = new StudentGradeTracker(count);

tracker.enterGrades();

tracker.displayResults();

}

}

OUT PUT  
  
