Jhon Keneth Ryan B. Namias CS2A

Source Code:

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\* Student Grade Calculator

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\* This program allows users to calculate the final grades of students based on their preliminary, midterm, and final term scores.

\* It also determines if a student has passed or failed based on their average grade.

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\* Author: PP-Namias

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\* Activity#2:

\* Create a C# program that will search at least 3 students' records,

\* if found it will compute the final grades of the students

\* by entering the PRELIM, MIDTERM & FINAL TERM and the Final Grades is the

\* average of the 3 grades you have entered, and then by the determining

\* the average of the students if the average is less than 75 it will display the word "FAILED"

\* but if the average is more than 75 it will display "PASSED".

\*/

using System;

class Program

{

static string[] studentNames = new string[100];

static double[,] studentGrades = new double[100, 3];

static int numberOfStudents = 0;

static void Main(string[] args)

{

Console.WriteLine(" \_\_\_\_\_ \_ \_ \_ \_\_\_\_\_ \_ \_\_\_\_\_ \_ \_ \_ ");

Console.WriteLine(" / \_\_\_\_| | | | | | / \_\_\_\_| | | / \_\_\_\_| | | | | | | ");

Console.WriteLine(" | (\_\_\_ | |\_ \_ \_ \_\_| | \_\_\_ \_ \_\_ | |\_ | | \_\_ \_ \_\_ \_\_ \_ \_\_| | \_\_\_ | | \_\_ \_| | \_\_\_ \_ \_| | \_\_ \_| |\_ \_\_\_ \_ \_\_ ");

Console.WriteLine(" \\\_\_\_ \\| \_\_| | | |/ \_` |/ \_ \\ '\_ \\| \_\_| | | |\_ | '\_\_/ \_` |/ \_` |/ \_ \\ | | / \_` | |/ \_\_| | | | |/ \_` | \_\_/ \_ \\| '\_\_|");

Console.WriteLine(" \_\_\_\_) | |\_| |\_| | (\_| | \_\_/ | | | |\_ | |\_\_| | | | (\_| | (\_| | \_\_/ | |\_\_\_| (\_| | | (\_\_| |\_| | | (\_| | || (\_) | | ");

Console.WriteLine(" |\_\_\_\_\_/ \\\_\_|\\\_\_,\_|\\\_\_,\_|\\\_\_\_|\_| |\_|\\\_\_| \\\_\_\_\_\_|\_| \\\_\_,\_|\\\_\_,\_|\\\_\_\_| \\\_\_\_\_\_|\\\_\_,\_|\_|\\\_\_\_|\\\_\_,\_|\_|\\\_\_,\_|\\\_\_\\\_\_\_/|\_| ");

while (true)

{

Console.WriteLine(" ");

Console.WriteLine("[ 1 ] Enter student grades");

Console.WriteLine("[ 2 ] Search for student records");

Console.WriteLine("[ 3 ] Exit");

Console.WriteLine(" ");

Console.Write("Choose an option: ");

int choice = int.Parse(Console.ReadLine());

switch (choice)

{

case 1:

EnterStudentGrades();

break;

case 2:

SearchForStudentRecords();

break;

case 3:

Environment.Exit(0);

break;

default:

Console.WriteLine("Invalid choice. Please choose again.");

break;

}

}

}

static void EnterStudentGrades()

{

Console.WriteLine(" ");

Console.WriteLine("Enter Student Names and Grades:");

Console.Write("Student Name: ");

string name = Console.ReadLine();

studentNames[numberOfStudents] = name;

Console.Write("Prelim Grade: ");

double prelimGrade = double.Parse(Console.ReadLine());

studentGrades[numberOfStudents, 0] = prelimGrade;

Console.Write("Midterm Grade: ");

double midtermGrade = double.Parse(Console.ReadLine());

studentGrades[numberOfStudents, 1] = midtermGrade;

Console.Write("Final Term Grade: ");

double finalGrade = double.Parse(Console.ReadLine());

studentGrades[numberOfStudents, 2] = finalGrade;

double averageGrade = (prelimGrade + midtermGrade + finalGrade) / 3;

Console.WriteLine($"Average Grade: {averageGrade}");

string result = (averageGrade >= 75) ? "PASSED" : "FAILED";

Console.WriteLine($"Result: {result}");

numberOfStudents++;

}

static void SearchForStudentRecords()

{

if (numberOfStudents == 0)

{

Console.WriteLine("No student records found.");

return;

}

Console.WriteLine(" ");

Console.WriteLine("List of Student Records:");

Console.WriteLine("Student Number\tStudent Name");

for (int i = 0; i < numberOfStudents; i++)

{

Console.WriteLine($"{i + 1}\t\t{studentNames[i]}");

}

Console.WriteLine(" ");

Console.Write("Enter the student number to search or 0 to exit: ");

int searchChoice = int.Parse(Console.ReadLine());

if (searchChoice == 0)

return;

if (searchChoice > 0 && searchChoice <= numberOfStudents)

{

int studentIndex = searchChoice - 1;

Console.WriteLine($"Student Name: {studentNames[studentIndex]}");

Console.WriteLine($"Prelim Grade: {studentGrades[studentIndex, 0]}");

Console.WriteLine($"Midterm Grade: {studentGrades[studentIndex, 1]}");

Console.WriteLine($"Final Term Grade: {studentGrades[studentIndex, 2]}");

double averageGrade = (studentGrades[studentIndex, 0] + studentGrades[studentIndex, 1] + studentGrades[studentIndex, 2]) / 3;

Console.WriteLine($"Average Grade: {averageGrade}");

string result = (averageGrade >= 75) ? "PASSED" : "FAILED";

Console.WriteLine($"Result: {result}");

}

else

{

Console.WriteLine("Invalid student number.");

}

}

}

Output (Sample):

