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Description: This program manages a list of up to 10 players, and their high scores.

There will be 4 functions that allow the user to interact with the program by managing (adding, deleting)

players and their highscores in the program. This program will not utilize a struct or class.

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#include <iostream>

#include <string>

#include <iomanip>

using namespace std;

void FriendlyGreeting();

//Pre-condition: There is no pre-condition here. This function only displays hardcoded outputs.

//Post-condition: No post condition

int UserSelection();

//Pre-condition: There is no pre-condtition here. The user selects a number between 1 and 4

//Post-condition: This function returns the a variable type int, which is the user selected number

void PrintList(int array1[], int size1, string array2[]);

//Pre-condition: Two arrays are already initialized and defined. One is type int, the other is type string. Also a variable

//that contains the value's of the sizes of the arrays.

//Post-condition: This function does not return any values.

int CountList(int count, int scores[]);

//Pre-condition: An integer is initliazed and there is an array with type int.

//Post-condition: This function returns the total count of elements within the Array

void ManageList(int scores[], int ArraySize, string players[], int userchoice, int count);

//Pre-condition: This function managess all interaction from the user to the Arrays of players and scores.

//In order to use this funciton properly you need 2 arrays defined , 1 type int and the other type string,

//and you also need 3 integers defined as well.

//Post-condition: There is no variable returned. Just the output statements from the individual user selections.

int main()

{

//Define variables

int count = 0;

int userchoice = 0;

int scores[10] = { 92,87,94,99,96, };

string players[10] = { "Garry","Roger","Winslow","Charles","Bubba" };

//Call functions

FriendlyGreeting();

do {

int ArraySize = CountList(count, scores);

userchoice = UserSelection();

ManageList(scores, ArraySize, players, userchoice, count);

} while (userchoice != 5);

return 0;

}

//Description: This function will print out a hardcoded friendy output to the user

void FriendlyGreeting()

{

//Friendly greeting to program

cout << "Hello and welcome to Program 19, from Chapter 5 Written by Stewart Moon. " << endl;

cout << "This program allows the user to interact with a list of players and their ";

cout << "highscores." << endl;

cout << endl;//Empty Line

}

//Description: This function will print out the contents of the Arrays "players" and "scores"

void PrintList(int array1[], int size1, string array2[])

{

cout << endl;//Empty Line

cout << "List of Players and HighScores " << endl;

for (int i = 0; i < 10; i++)

{

//Logic for displaying both Arrays

if (array1[i] != 0)

{

cout << array2[i] << " ";

cout << array1[i];

cout << endl;

}

}

cout << endl;//Empty Line

}

//Description: This function prompts a user for input and returns it in the variable userpick.

int UserSelection()

{

//Define variables

int userpick;

//Prompt the user for input

cout << "1. Add a new player and score. " << endl;

cout << "2. Print all players & scores to the screen. " << endl;

cout << "3. Search for a player and score." << endl;

cout << "4. Remove a player and score from the list" << endl;

cout << "5. To leave the Exit the Program" << endl;

cout << "Please select options between 1-5: ";

cin >> userpick;

cout << endl;//Empty Line

return userpick;

}

//Description:This function counts how many elements are within the array that is passed

int CountList(int counter, int scores[])

{

//Logic for calcualting elements in array

for (int i = 0; i < 10; i++)

{

if (scores[i] != 0)

{

counter++;

}

}

return counter;

}

//Description:

void ManageList(int scores[], int ArraySize, string players[], int userchoice, int count)

{

string deletedplayer;

//Logic for if user wants to add a player

if (userchoice == 1)

{

//Count the Array size

int newspot = ArraySize + 1;

//Add a player and score to the array

cout << "Enter the Players name: ";

cin >> players[newspot];

cout << "Enter the Players score: ";

cin >> scores[newspot];

//Print out the new array

PrintList(scores, count, players);

}

else if (userchoice == 2)

{

//Print out the array

PrintList(scores, count, players);

}

else if (userchoice == 3)

{

//Declare variables

string userinput;

//Prompt user for input

cout << "Please enter a player to look up their score: " << endl;

cin >> userinput;

//Logic for searching for player

for (int i = 0; i < 10; i++)

if (userinput == players[i])

{

cout << userinput << " score is: " << scores[i];

}

cout << endl;//Empty Line

cout << endl;//Empty Line

}

else if (userchoice == 4)

{

//Prompt user for input

cout << "Please enter a player to delete them and their score: ";

cin >> deletedplayer;

//Logic for searching for player and deleting them

for (int i = 0; i < 10; i++)

{

if (deletedplayer == players[i])

{

players[i] = "";

scores[i] = 0;

}

}

PrintList(scores, count, players);

}

}//End function