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...31_Assignment_1\131_Assignment_1\131_Assignment_1.cpp 1
1 // 131_Assignment_1.cpp : This file contains the 'main' function. Program ➤
  execution begins and ends there.
2 //
3 //
4 // / ➤
  ----- ➤
  -----
5 // Name ➤
  Sai Chaitanya Kilambi, Sohrab Bahari
6 // Course ➤
  CPSC 131 Data Structures, Fall, 2022
7 // Assignment ➤
  No.1 part a
8 // Due date ➤
  08/28/2022
9 // Purpose:
10 // This program copies the data from a text file and displays it in the ➤
  form of a table.
11 //----- ➤
  -----
12 // list of libraries
13 //
14 //importing the required libraries
15 #include <iostream>
16 #include<iomanip>
17 #include<string>
18 #include<fstream>
19
20 //creating a structure named president
21 struct president
22 {
23     std::string    presName;
24     std::string    yearsServed;
25     std::string    wifeName;
26
27 };
28 // function for copying the data from the data.txt file into the array of ➤
  structure
29 void Copy_Data(std::string file_name, president *presidents, int n)
30 {
31     std::fstream f;
32
33     //opening the file to only read
34     f.open(file_name, std::ios::in);
35
36     // copying the file data into an array of structure
37     for (int i = 0; i < n; i++) {
38         f >> presidents[i].presName;
39         f >> presidents[i].yearsServed;

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40     f >> presidents[i].wifeName;
41     }
42     //closing the data.txt file
43     f.close();
44 }
45
46 //function to display the array of structures
47 void Display(president *presidents, int n)
48 {
49
50     //first row of the table
51
52     std::cout << std::setw(20) << std::left << "Name" << std::setw(20) <<
        std::left << "Years Served" << std::setw(15) << std::right << "Wife's
        Name" << std::endl;
53
54     //coressponding rows of the table
55     for (int i = 0; i < n; i++)
56     {
57         std::cout<< std::setfill('.') << std::setw(20) << std::left <<
            presidents[i].presName << std::setfill('.')<<std::setw(20) <<
            std::left << presidents[i].yearsServed << std::setfill('.') <<
            std::setw(15) << std::right << presidents[i].wifeName <<
            std::endl;
58     }
59 }
60
61
62
63 //main function
64 int main()
65 {
66     president presidents[6];
67
68     //calling the copy function
69     Copy_Data("data.txt", presidents, 6);
70
71     //calling the display function
72     Display(presidents, 6);
73
74     return 0;
75
76 }
77
78
```