Assignment 2 specification

Total of 100 marks

Weighting: 20%

Due Date: 7 May 2022

Question 1 (35 marks)

Write a C++ program in which users can:

- Users can specify the name (*string staffName*) of a staff; (5 marks)
  - (a name can consist of one or many words such as "David" or "4" or "Peter the Great in Australia and New Zealand";
  - Entering "done" will terminate the program.
- Users can specify the profession (*int staffProf*) of the staff; (10 marks)
  - Only 4 options: integer 1, 2, 3 or 4; (assume that the entry is one of the 4 values)
  - If users enter anything other than an integer,
    - "Wrong entry!" should be displayed.
    - And the program continues to ask for another staff name (and profession).
- A user-defined function is used to do the output: (5 marks)
      void printEntry (string name, int staffProf);
- When printing out the information of a student, the (int) staffProf is mapped to strings: (5 marks)
  1 => "Receptionist";
  2 => "Administrator";
  3 => "Nurse";
  4 => "Doctor")
- Typical program output with normal input: (5 marks)

```
C:\CSC2402>StudentNumber_A2_Q1
Please enter a staff name("done" to leave the program):
James Citizen
Please enter the profession of James Citizen
3
Staff James Citizen is a nurse
Please enter a staff name("done" to leave the program):
Kim Berkeley
Please enter the profession of Kim Berkeley
2
Staff Kim Berkeley is an administrator
Please enter a staff name("done" to leave the program):
done
C:\CSC2402>
```

- Typical program output with non-integer input for the staffProf: (5 marks)

```
C:\CSC2402>StudentNumber_A2_Q1
Please enter a staff name("done" to leave the program):
James Citizen
Please enter the profession of James Citizen
3
Staff James Citizen is a nurse
Please enter a staff name("done" to leave the program):
A
Wrong entry!
Please enter a staff name("done" to leave the program):
Kim Berkeley
Please enter the profession of Kim Berkeley
2
Staff Kim Berkeley is an administrator
Please enter a staff name("done" to leave the program):
done
C:\CSC2402>
```

Submit your answer as <StudentNumber>_A2_Q1.cpp (e.g. 12345678_A2_Q1.cpp).

Question 2 (65 marks)

Write a C++ program which:

- Implements all the requirements of Question 1 except for the printing of staff information;
- Store the information (*string staffName* and *int staffProf,* same as in Question 1) of a student in a structure *staffStruct call staffTWB*. (15 marks).
- Store the information of all staff(all struct) in an array *staffArray[50]* of 50 staff max. (10 marks)
- Print the content of all staff only after the user completes entry of all student information (entered "done" to exit). (10 marks)
- Use a user-defined function printArray(staffStruct [], int counter) to do the printing. (20 marks).
- Typical program output with normal input: (10 marks)

```
C:\CSC2402>StudentNumber_A2_Q2
Please enter a staff name("done" to leave the program):
James Citizen
Please enter the profession of James Citizen
3
Staff James Citizen is a nurse
Please enter a staff name("done" to leave the program):
A
Please enter a staff name("done" to leave the program):
Kim Berkeley
Please enter the profession of Kim Berkeley
2
Staff Kim Berkeley is an administrator
Please enter a staff name("done" to leave the program):
John Lynch
Please enter the profession of John Lynch
1
Staff John Lynch is a receptionist
Please enter a staff name("done" to leave the program):
Mary Cook
Please enter the profession of Mary Cook
4
Staff Mary Cook is a doctor
Please enter a staff name("done" to leave the program):
Done
**********List of staffs**********
Staff James Citizen is a nurse
Staff Kim Berkeley is an administrator
Staff John Lynch is a receptionist
Staff Mary Cook is a doctor
**********End of List**********
C:\CSC2402>
```

Submit your answer as <StudentNumber>_A2_Q2.cpp (e.g. 12345678_A2_Q2.cpp).

1. Submission

Your submission should have the following files separately and should not be the zip file:
- <StudentNumber>_A2_Q1.cpp
- <StudentNumber>_A2_Q2.cpp

Note that you can submit the assignment only ONCE, though you are allowed to upload the assignment to the system unlimited times prior to the official submission. Please make sure you press the "Submit" button to confirm the official submission.

2. Plagiarism and Academic Misconduct

USQ has zero tolerance for academic misconduct including plagiarism and collusion. Plagiarism refers to the activities of presenting someone else's work as if you wrote it yourself. Collusion is a specific type of cheating that occurs when two or more students exceed a permitted level of collaboration on a piece of assessment. Identical layout, identical mistakes, identical arguments and identical presentations in students' assignments are evidence of plagiarism and collusion. Such academic misconduct may lead to serious consequences, such as:
• Required to undertake an additional assessment in the course

• Failed in the piece of assessment

• Awarded a grade of Fail for the course

• Withdrawn from the course with academic penalty

• Excluded from the course of the program for a period of time

Refer to USQ Policy on Academic Misconduct for further details.

3. Extensions
It is expected that all assessment tasks will be submitted/completed by the published due date. However, as per USQ Assessment Procedure, requests for an extension of the due date can be made before the due date for the assessment.