COMP1000 C1 W2 Report

The following document has been started for you. The intention is to list tests that need to be performed in order to evidence which requirements have been met. It is important to be honest and only claim something works if you can evidence it. Note that the assessor will be running a whole batch of tests on your code.

Task A already has sufficient test coverage.

Tasks B-D have been started, but you will need to add more tests. You should include test cases where the user enters both valid and invalid parameters.

# Task A:

Perform the following tests in sequence from the command line:

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| **Test** | **Expected Result** | **Passed?** |
| Delete computing.txt if present  Run querydb.exe with the following parameters:  -db computing.txt -showAll | Error that displays:  Cannot open file computing.txt | Y |
| Run querydb.exe | Generates a test database computing.txt  Writes “Creating starter database for testing” in the terminal  Inspect computing.txt with text editor to confirm 3 entries as shown below:  #RECORD  #SID  12345  #NAME  Jo Kingly Blunt  #ENROLLMENTS  COMP101 COMP102 COMP105 COMP110 COMP150  #GRADES  54.0 67.5 33.1 78.4 47.1  #PHONE  44-1234-567890    #RECORD  #SID  14351  #NAME  Bee Hyve  #ENROLLMENTS  COMP101 COMP102 COMP105 COMP110 COMP155 COMP165  #GRADES  84.3 54.7 91.4 80.4 40.5 67.5    #RECORD  #NAME  Gee Rafferty  #ENROLLMENTS  ELEC101 ELEC133 COMP101 PROJ101 GIT101  #SID  15309  #GRADES  95.0 37.5 55.0 65.5 0.0 | Y |
| Run querydb.exe with the following parameters:  -db computing.txt -showAll | Displays the following:  SID:  12345  NAME:  Jo Kingly Blunt  ENROLLMENTS:  COMP101 COMP102 COMP105 COMP110 COMP150  GRADES:  54 67.5 33.1 78.4 47.1  PHONE:  44-1234-567890  SID:  14351  NAME:  Bee Hyve  ENROLLMENTS:  COMP101 COMP102 COMP105 COMP110 COMP155 COMP165  GRADES:  84.3 54.7 91.4 80.4 40.5 67.5  SID:  15309  NAME:  Gee Rafferty  ENROLLMENTS:  ELEC101 ELEC133 COMP101 PROJ101 GIT101  GRADES:  95 37.5 55 65.5 0 | Y |
| Run querydb.exe with the following parameters:  -db computing.txt -sid 12345 | Displays the complete single record with sid equal to 12345  SID:  12345  NAME:  Jo Kingly Blunt  ENROLLMENTS:  COMP101 COMP102 COMP105 COMP110 COMP150  GRADES:  54 67.5 33.1 78.4 47.1  PHONE:  44-1234-567890 | Y |
| Run querydb.exe with the following parameters:  -db computing.txt -sid 12346  -db computing.txt -sid 12346 -n  -db computing.txt -sid 12346 -g  -db computing.txt -sid 12346 -p | Should report there is no record with student ID 12346. | Y |
| Run querydb.exe with the following parameters:  -db computing.txt -sid abc12 | Should report that the student ID must be an integer | Y |
| -db computing.txt -sid 12345 -n | Should display only the name for student with ID 12345 (Jo Kingly Blunt) | Y |
| -db computing.txt -sid 12345 -g | Should display only module codes and grades for student with ID 12345 | Y |
| -db computing.txt -sid 12345 -p | Should display only the phone number for student with ID 12345 (44-1234-567890) | Y |
| -db computing.txt -sid 14351-p | Show indicate there is no phone number for this student | Y |
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# Task B

Perform the following tests in sequence from the command line: (note that not all tests have been written – you will likely want to add more).

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| **Test** | **Expected Result** | **Passed?** |
| Delete computing.txt if present  Run addrecord.exe with the following parameters:  -db computing.txt -showAll | Error that displays:  Cannot open file computing.txt | N |
| Run addrecord.exe | Generates a test database computing.txt | Y |
| -db computing.txt -add -sid 54321 -name John Doe -enrollments COMP201 COMP202 -grades 78.5 90.0 -phone 44-9876-543210 | Record Added Successfully | Y |
| -db computing.txt -add -sid invalid\_sid -name John Doe -enrollments COMP201 COMP202 -grades 78.5 90.0 -phone 44-9876-543210 | Error message indicating that the SID must be an integer | Y |
| -add -sid 54321 -name John Doe -enrollments COMP201 COMP202 -grades 78.5 90.0 -phone 44-9876-543210 | Error message indicating that the database file is missing. | Y |
| -db computing.txt -showAll | Display all records, including the newly added record. | Y |

# Task C

Perform the following tests in sequence from the command line: (note that not all tests have been written – you will likely want to add more).

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| **Test** | **Expected Result** | **Passed?** |
| Delete computing.txt if present  Run updaterecord.exe with the following parameters:  -db computing.txt -showAll | Error that displays:  Cannot open file computing.txt | N |
| Run updaterecord.exe with no parameters | Generates a test database computing.txt | Y |
| Update records  -db computing.txt -update -sid 12345 -name Updated Name -enrollments COMP201 COMP202 -grades 85.0 92.5 -phone 44-9876-543210 | Record updated successfully. | Y |
| Update record with invalid SID  -db computing.txt -update -sid invalid\_sid -name Updated Name -enrollments COMP201 COMP202 -grades 85.0 92.5 -phone 44-9876-543210 | Error message indicating that the SID must be an integer. | Y |
| Update a Non- Existent record  -db computing.txt -update -sid 99999 -name Updated Name -enrollments COMP201 COMP202 -grades 85.0 92.5 -phone 44-9876-543210 | No record with SID=99999 was found  Record with SID=99999 not found. No update performed. | Y |
| Update without database file  -update -sid 12345 -name Updated Name -enrollments COMP201 COMP202 -grades 85.0 92.5 -phone 44-9876-543210 | Error message indicating that the database file is missing. | Y |
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# Task D

Perform the following tests using Qt Creator in the order listed: (note that not all tests have been written – you will likely want to add more).

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| **Test** | **Expected Result** | **Passed?** |
| Run the application for the first time | No records displayed  Forward and back button should be disabled. | N |
| Click File->Open | This should present a standard File Open Dialog, which allows the user to browse and select a new database | N |
| Click File->Open, browse and select the default data computing.txt, then click cancel | No records displayed  Forward and back button should be disabled. | N |
| Click File->Open, browse and select the default data computing.txt, then click Open | First record should be displayed (ID 12345)  Forward button should be enabled; the back button should be disabled. | N |
| Click the forward button >> | The next record should be displayed (ID 14351).  The back and forward buttons should both be enabled | N |
| Click the forward button >> | The next record should be displayed (ID 14351).  The forward button should be disabled. The back button should be enabled | N |
| Double click a table entry and change the grades for all modules to 0.0; Then click File->Save | The entry for the student with ID 14351 should have zero grades against each module in the database file computing.txt | N |
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