# Criterion E:

Methods of data collection to be utilised:

Observation

Interview

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| --- | --- |
| Success Criteria | Evaluation |
| 1.     The client must be able to enter, edit and store test scores for each student | This is under work in progress |
| 2.     The client must be able to enter the number of total homework given to students and number of homework assignments completed by each student | The client can enter each homework individually and can traverse, search, edit and quary based on any attribute of a homework. |
| 3.     The system should be able to generate the effort grade for a student based on test scores, homework completion rate and the client’s perceived effort grade, with a 50%, 25% and 25% weighting to each respective factor | This is under work in progress |
| 4.     The system should weight semester exam scores as 70% and average quarter test scores as 30% of the 50% weighting given to the final effort grade | This is under work in progress |
| 5.     The client should be able to override the generated effort grade and replace the score with the effort grade the client intends to award the student, and to be able to record why the client performed this action | This is under work in progress |
| 6.     The system should not allow for incorrect data types, incorrect data format or duplicate data to be entered, i.e. there should be error management in case invalid input is entered | Try and catch validation has been implemented to prevent the input of invalid data. |
| 7.     The client should be able to enter the classes they teach and assign students to each class, with the data for each student being separate from other students, as no student can be in 2 classes for the same teacher | This is under work in progress |
| 8.     The system should be able to save entered data to secondary storage whenever the application is closed and should load said data when it is opened, provided the directory of stored data is not changed | The system implements serializable, hence the information is saved to secondary storage and loaded when the program is opened. |
| 9.     The client should be able to search for a student and view all data corresponding to the student upon the input of a query for first name, last name or student ID | The client is capable of searching using the first name, last name or student ID as a query to navigate the array list available. |
| 10.  The client should be able to view all students in a class | The arraylist of students is printable and outputs a list of all students in a class in the terminal. |

## Recommendations for future improvements:

This section is yet to be completed as I am unable to interview my client using my product as it is not finished as of yet. However, self recommendations for improvement have been included below:

### Self recommendations:

#### Train a logistic regression algorithm, with a softmax output, as the program runs

This would allow for a machine learning algorithm to be gradually trained, learning the teacher’s preferences and factors affecting the effort grade received by a student. This cannot be implemented now due to the lack of data, but this process would ensure that necessary data is collected over time.

#### Automatically produce reports of the effort grades achieved by a student

This option would allow for the process of generating reports to be integrated with the effort grade generator, easing the workload on my client while also increasing the functionality of my system.

#### Add the option to share with parents the reasoning behind the awarding of an effort grade directly when reports need to be produced

This would allow for automatic and accurate feedback to be produced and would reduce the workload on my client.