**Criteria 3 Analysis**

**Interview:**

* + The client wishes for a study application with various features to enhance the studying experience
  + This includes adding tags to questions added to split them up and having sorting functionality
  + The client also wishes to be able to have different question formats, exporting functionality, and sorting questions by the score allocated to it
  + In terms of the GUI, the client would like to have it in one screen only, buttons for saving and exporting, a box for adding questions as well as a drop down box to select the question type, and also to be able to change the theme of the application
  + The client has expressed that displaying questions and allocating tags and being able to sort the questions is to be of top priority
  + They have also stated that the functionality of the solution opening up on boot would be useful if it was customisable

**Survey:**

* + Majority of the responses have stated that a study application in the style of the proposal would be beneficial to their studies, suggesting a demand for this type of application
  + Furthermore, there was a majority of 'yes' responses to the question asking whether the program opening up on boot would be useful or not, revealing that it is a feature worth development time
  + Quizlet was the most commonly used study application according to the survey, which may mean that features of this program may serve as a good basis for the final solution
  + A couple of the useful features from previous study applications were stated as follows:
    - Streaks
    - Convenience and having sub sections
    - Creating tests
    - Efficiency
  + The two features that were stated to be the most important for a study application were that it should be easy to use and the user should be able to see which questions they did the best/worse
  + Features that were suggested were being able to sort the questions into sub sections and being able to distinguish which questions one would need to improve on

**Observations:**

* + The observation was completed on another study application under the name of Anki
  + One of the features was being able to split the study into different decks, which falls under one of the repeatedly requested features in the survey
  + Submenus include decks, adding a new question, searching through added questions, statistics, and syncing
    - This differs from the client's request for having it all in one window, thus it could be changed to having the functionality in buttons instead
  + A question has a front and back format, being the question and answer
  + The search function allows the user to look through the questions they have added
    - This function is similar to what has been emphasised by the client and survey respondents, in that the user should be able to sift through the questions they have added and sort them
  + The statistics function displays information on how the application has been used
    - This does not align with the client's request to be able to view which question the user struggles with the most
  + The settings includes alteration of the study schedule

As such, the following functional and non-functional requirements have been outlined for the proposed solution.

**Functional requirements:**

* + User can add their own questions
  + Multiple question formats (multiple choice, short answer)
  + Adding tags to the questions
  + Being able to sort the questions by tags
  + A 'score' system to see which questions were struggled with the most
  + Buttons for saving and exporting
  + Customisation options for the feature of opening up on boot
  + A PIN as a security measure, the user can set up one and it will be used to gain access to the program on boot

**Non-functional requirements:**

* + Easy to use (the user can intuitively use the program within 30 minutes of first using it)
  + Efficient; the program works fast (i.e. it takes little time (less than 5 seconds) to start studying with the questions, etc.)
  + Robust, can react properly to errors and invalid inputs
  + Consumes little resources, can run on low end devices
  + Readable UI
  + Attractive UI

**Criteria 4 Analysis**

As the SRS was being completed, it was constructed with the constraints of the project in mind. Thus, such questions were asked during the write up of the specifications:

* “Is this achievable within a 4-week time frame?”
* “Do I have the skills and capabilities to create the program?”

These questions were used to help formulate the scope of the program. Functions that were outside of the capabilities were written to be outside the scope of the program.

The data obtained during criteria three was used to create the analytical tools. Through the data, questions such as these were answered:

* “What are the functionalities of the solution?”
* “How are these linked?”

This helped guide the creation of the diagrams. The first question was essential in knowing what to add for the use cases and processes of the solution to add into the three diagrams. Finally the second question helped determine how each aspect of the diagrams should be linked, by relation and data flow.

It was found that during the creation of the analytical tools that the data and the analysis that came from it was sufficient to completing criteria 4. With the data available, the four questions listed above were able to be answered to an acceptable degree. The diagrams were able to be created without requiring more data and the SRS was completed with the help of the data analysis completed beforehand.