Criterion E: Evaluation

[x] Appendix (meeting) index.

Final test plan:

This information is based on pure experimentation in the form of (Dry-run), (Unit) & (Integration) testing:

Test	Success criteria	Testing success
1	**(a) High Priority:** The system *must* be able to provide a clear dynamic list of available rooms at any moment.	Successful
2	**(b) High Priority**: The "StudyGroup" subsystem *must* propose to users matching groups. It is assumed that a "matching" happens when a StudyGroup is set with the same subject as the user's filter search.	Successful
3	**(c) High Priority:** The system *must* allow the creation of study groups, both in the case that non were found, and that the user wishes to create one.	Successful
4	**(d) High Priority:** The program *has* to be able to send emails when new StudyGroups are created. The recipients *must* share a subject with the StudyGroup and have agreed on receiving notifications.	Successful
5	**(e) High Priority:** The program *has* to be able to send emails when new Tutoring petitions have been created. (Only for users that agreed on receiving Tutoring notifications and study the subject being asked for)	Successful
6	**(f) High Priority:** The program *has* to be able to send a retrieved password through email when the button "Forgot password?" is pressed.	Successful
7	**(g) High Priority:** Students *need to be able* to ask for help, similarly, provide Tutoring.	Successful
8	**(h) High Priority:** If a host quits a StudyGroup, the group *must* be automatically deleted. Meaning that all users in it will be logged-out of the group.	Successful
9	**(i) Medium Priority:** The System *must* allow users to obtain information from a StudyGroup before joining.	Successful
10	**(j) Medium Priority:** When creating a StudyGroup the user *should* have access to a place where to describe the main focus of the group.	Successful
11	**(k) Medium Priority:** The program *must* allow the changing of UserName.	Failed

12	**(l) Medium Priority:** StudyGroups *can only exist* for ten hours. After that the StudyGroup should be renovated or otherwise will be deleted from the main view and database.	Failed
13	**(m) Medium Priority:** *Option* to receive or not to receive emails for Tutoring or new StudyGroups created.	Successful
14	**(n) Medium Priority:** Users *should* be able to research/create interdisciplinary StudyGroups. Meaning StudyGroups that were/are registered with more than one subject.	Successful
15	**(o) Low Priority:** When the "Password" or "Email" of a user is being edited on the settings category, the system *has* to be able to inform the user by email.	Successful
16	**(p) Low Priority:** The program *has* to be able to allow students to exceptionally book specific study rooms for given reasons (Standardized tests/Exams). This will be done by sending a common email to all users .	N/A
17	**(q) Low Priority:** When creating StudyGroups that exceeds the curfew hour, there *should* be a notice to remind students of asking for extended curfew.	N/A

Success evaluation:

This evaluation is based on the client's feedback [E.1] and personal opinion. (User acceptance testing)

Success Criterion (Criteria A)	**Satisfaction level:** 1 2 3 4 5	**Evaluation**
(a) High Priority: The system must be able to provide a clear dynamic list of available rooms at any moment.	**4**	The GUI used has been specially designed to be simple and directly answer the needs of the user. A flaw that was raised during meeting (E.1) is the possible instance when a room might show as available when in reality it will host a class in 5 minutes.
(b) High Priority: The "StudyGroup" subsystem *must* propose to users matching groups. It is assumed that a "matching" happens when a StudyGroup is set with the same subject as the user's filter search.	**5**	This was of special relevance to filter the StudyGroups presented to each user. It helped avoid excessively long "Jlists" hence driving towards a better user experience.
(c) High Priority: The system must allow the creation of study groups, both in the case that non were found, and that the user wishes to create one.	**5**	This was as well crucial given the fact that some users will prefer creating their own StudyGroups for diverse reasons. This option is given in both cases where the research for a StudyGroup is successful and unsuccessful.

(d) High Priority: The program has to be able to send emails when new StudyGroups are created. The recipients must share a subject with the StudyGroup and have agreed on receiving notifications.	**4**	While the criterion has been fully achieved, the process of sending an email does take a few seconds, freezing the frame. This could hinder the requirement for a fluid user experience. A future implementation should allow the use of the system while an email is being sent.
(e) High Priority: The program has to be able to send emails when new Tutoring petitions have been created. (Only for users that agreed on receiving Tutoring notifications and study the subject being asked for)	**4**	As said earlier, the process of sending emails does take time, hence influencing the user experience.
(f) High Priority: The program has to be able to send a retrieved password through email when the button "Forgot password?" is pressed.	**4**	Again, the emailing system, ended up working as expected. Nevertheless, the time lag can be considered detrimental.
(g) High Priority: Students need to be able to ask for help, similarly, provide tutoring.	**5**	This subsystem was fully achieved. Additional features have been implemented such as an optional message if a user wishes to say something particular.
(h) High Priority: If a host quits a StudyGroup, the group must be automatically deleted. Meaning that all users in it will be logged-out of the group.	**5**	For sure one of the hardest features of this code, which has required the use of the join operator to link databases with an Array List of names. It is totally functional.
(i) Medium Priority: The System must allow users to obtain information from a StudyGroup before joining.	**5**	Being one of the most important features, It was very important to successfully manage this requirement. It has allowed users to obtain information about a StudyGroup without having to join it.
(j) Medium Priority: When creating a StudyGroup the user should have access to a place where to describe the main focus of the group.	**3**	This has been partially completed since I have not implemented such feature where "Hosts" can add a description of a study group. The main issue was the lack of space. On the other hand, I was able to implement an option to add specific topics that the group will discuss.
(k) Medium Priority: The program must allow the changing of UserName.	**1**	This subsystem rendered especially complex given the "UserName" being used as an ID. A potential change would affect the entire program by having to edit several tables in the database. A future version should consider changing the ID as an alphanumerical text instead of the "UserName".
(l) Medium Priority: StudyGroups can only exist for ten hours. After that the StudyGroup should be renovated or otherwise will be deleted from the main view and database.	**1**	I haven't had the time to complete this section. It was specially complex to implement a clock that could identify and automatically delete a StudyGroup. Such system is also supposed to send notifications to the user informing that their study group has been deleted. This is a must for an upcoming version of the product.

(m) Medium Priority: Option to receive or not to receive emails for Tutoring or new StudyGroups created.	**5**	This feature has been both implemented in the "SignIn" and "Settings5" classes. It has allowed the user to have a greater control in the reception of notifications.
(n) Medium Priority: Users *should* be able to research/create interdisciplinary StudyGroups. Meaning StudyGroups that were/are registered with more than one subject.	**5**	This feature was achieved by making use of complex but yet concise GUIs.
(o) Low Priority: When the "Password" or "Email" of a user is being edited on the settings category, the system has to be able to inform the user by email.	**4**	This Subsystem works as expected although the emailing time lag is still present. Apart from that, the user has found this feature especially helpful given the fact that students do change their passwords in a regular basis.
(p) Low Priority: The program has to be able to allow students to exceptionally book specific study rooms for given reasons (Standardized tests/Exams). This will be done by sending a common email to all users .	**N/A**	This function was disabled following a discussion with the client. It was highlighted that we should be careful to not create a feature that could originate excessive spamming or even a bad usage of the system.
(q) Low Priority: When creating StudyGroups that exceeds the curfew hour, there should be a notice to remind students of asking for extended curfew.	**N/A**	This feature was also disabled because of the new boarding school guideline where students have an Open Building Policy (OBP). Since this function might render useless, it was decided with the client to disable it [E.1].

Overall assessment:

The client's general impression ended up quite positive, he said that "The product is completely meeting the expectations for the first implementation" he added, "I love the way the product actually feels like a desktop application with great care onto details". It was specifically highlighted that this advanced prototype will serve as a great demonstration for a "cloud server budget to be advocated". With the rapidly approaching May exams, the client especially expressed his contentment with the tutoring option which will help during the study leave. Overall, the client expressed how the product mostly met and to a certain degree, surpassed his expectations.

Surely, the client also emphasized a few minor gaps: "The product lags because of emails" "The available study rooms page will become inaccurate during the study leave season, due to DP2s not having classes but DP1 yes". The comments were pertinent and led to the discussion of future implementations.

Future developments:

Future developments were both proposed by the developer (me) and the client [E.1]. Before implementation, they will be discussed with my supervisor:

Minor developments:

a) Expiration time for “StudyGroups”: This should hopefully help avoid the excess of fake or outdated groups. By doing so, It will be possible to satisfy one of the uncompleted success criteria (l).

b) Additional subjects: For a more comprehensive study system, the product should incorporate subjects such as TOK or EE. **For TOK there should be an option to input the specific title/question for both the Exhibition and Essay**

Moderate developments:

a) Update UserName: While this feature is not crucial, it is important for a fully functional product. By doing so, users will be able to change their username from “FirstName_LastName_DP1” to “FirstName_LastName_DP2”. This will allow the completion of another success criterion (k).

Major developments:

a) Improving the “AvailableRooms” system: Because of study leaves for DP1s and DP2s, it will be crucial to improve the “AvailableRooms” system in order to identify such periods and avoid displaying wrongful information.

b) Freezing frames during emailing: Multithreading can be used to solve this issue. It will allow to parallelly process actions.

c) Embedded user assistance: It could be useful to add user assistance inside the GUIs. Small buttons could be added to open message dialogues with instructions.

Word count: 394.