

## ***Project Individual Task 4 - Reflections***

### **Question 4A:**

Through analysing the application My Study Life, we gained a better understanding of the domain requirements of a student life application, as well as, confirmed some of our application requirements. Many of the features of this application closely relate to the requirements of our own, including the ability to create task/challenges and to create calendars for planning academic and personal life. Thus, we were able to compare our application to My Study Life to confirm requirements, for instance, students shall be able to receive and accept event invites from other users and that students shall be able to set a reminder for an upcoming event. Furthermore, by analysing this application I was able to better understand how different pages/tabs within the application interact and interface with one another. For instance, navigating to the calendar page from the home screen, reminders page, task page, etc. Finally, by analysing this application the following question arose: Does the application need to sync across multiple devices? What is the best way for reminders to be set? Does the calendar sync with external calendar applications?

By analysing another student life application, 'Unilife', we were able to establish a requirement regarding the formation of individual and group communication channels. Unilife allows for students to directly message peers, lecturers, teaching assistants and class groups. This made us consider different methods of communication, such as chatrooms, forums, public blogs, etc. However, we decided that having a direct messaging system would be the best option for a few reasons because some individuals will not feel comfortable posting to public forums, and it will prevent people from being flooded with irrelevant information. Furthermore, private messaging allows for students to talk to tutors, lecturers and co-ordinator and other academic staff directly. Some questions that arose from analysing this application are: How will users find each other with the communication channel? How can users form group chats? Do users need to accept group chat invitations?

'Canvas' is another type of student life application that enables a connection between teaching staff and students. The platform allows for teachers to directly contact student groups, i.e. student taking Mathematics 1A, and allows students to manage all their academic life, such as watching lectures, submitting assignments, contacting staff and viewing grades. This platform helped us to develop requirements regarding what features our application will require to meet the academic needs of the students. Some questions that arose are: How can we implement personal life organisation? Do we want to recreate all these features or just interface our application with canvas?

#### **Question 4B**

Our first task was to develop a requirements elicitation plan. This stage helped me to establish an understanding of the different elicitation techniques and their benefits and limitations. Furthermore, I learnt that a range of elicitation techniques need to be performed in order to maximise the identification of both external and internal requirements. I believe that this skill will be helpful in the future because project requirements must be properly and effectively elicited to reduce the project's cost and time spent eliciting requirements. Furthermore, many of the elicitation techniques require leadership, communication and organisation skills, therefore, future employers will be more likely to hire someone with elicitation skills as they are well versed.

The requirements analysis and specification are key stages that must be undertaken to limit the occurrence of issues later in the project. Requirements analysis emphasises the importance of breaking high-level requirements down into detailed lower-level requirements. This was done through the use case task, in this task, we had to identify two high-level requirements for our projects, such as the application must have a calendar and creating a priority of the requirements. Requirement specification refers to breaking these requirements down into smaller detailed functional requirements, to ensure that the developers have all the information they need regarding the requirement. Having the knowledge and practice in this field will help me in the workforce because customers do not necessarily know the functional requirements of their product and will often provide developers with a high-level requirement. Therefore, the developer must know how to break these requirements down into smaller workable ones.

Next, we focused on reviewing our requirements. It is important to review the work done so far to ensure that you are meeting the goals and needs of the systems and customer. In this instance, we reviewed the completeness, correctness and quality attributes of each requirement. Being able to critically assess and analyse your work is an important skill and without doing so important needs may not be getting met, meaning the overall cost and time of the project will increase.

The next phase focused on requirements modelling. This phase is about creating a visual representation of the interactions between the system's internal functionality and users/external interfaces. In our project, we utilised use case diagrams and class diagrams. These diagrams help to see the interactions and dependencies of the system, for example, the user must be logged in to the application to access the communication channels. Furthermore, these diagrams can be used as a prototype for the system and are a great way of showing customers the progress of the project and the inner working of the system, in a simple but effective manner.