UNIVERSITY OF LEEDS

SCHOOL OF COMPUTING

SOFTWARE ENGINEERING PRINCIPLES (COMP2912)

Coursework 1

Software Design Brief

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Introduction

The project has a primary focus of bettering the mental health of its university students, this will be done by implementing an app, in conjunction with the universities exiting systems, to create a way to help students succeed. After looking at other apps available, it was clear that documenting progress is important, but it should also be able to put students closer to support. A primary focus should be to allow students to have a more discreet way of letting lecturers know their situation, as mental health issues are very personal and varied. An abstraction away from sending a personal email explaining their situation would be helpful in students being better able to communicate with lecturers and staff. Secondary focus should be information on the topic, for this app to be useful, it must give new information to everyone. Students should know how to help friends, there are a large variety of mental illnesses, many people do not know how each one differs due to lack of education on the topic in school. Most people will not know the difference between schizoaffective disorder, schizophrenia and psychosis. Because of this lack of education, lecturers may find it harder to sympathise with their students and understand their situation. Also, for friends of those affected, it is hard to know what to do. Stakeholders for the project are; the students suffering from mental health issues, invested so that they have a better quality of life and succeed in university, their families and friends, invested so that their friends do not do poorly in university, their tutors, lecturers and the university itself, since having failing students reflects badly on the university, and the university want to make all their students safe as most of them are in new places with new people, and may find this transition more difficult than at other times in their life.

Summary

The solution proposed will be centred around an app, with student and lecturer login. The app will also have to work in conjunction with informational sessions and lecturers for all students.

The app will be available to all students. Students will login with their student ID. They can register for having mental health issues during the university registration process or at any point during the year. Once they have registered, they will have a meeting with student support to verify / learn more about their situation. This will then be tied to their university ID, which will be used for logging into the app. When students log in, they can then use the app to log how they feel. If they have any anxiety, paranoia, stress, anger, schizophrenia, etc they can log when they feel like this to the app. And can be used in meetings to track how each student is doing. The students should be able to schedule meetings with support officers and be able to talk to support through the app directly.

For students not suffering from mental health issues, the app should give lots of information about all the different and varied mental health issues, what the effects are, how to deal with a suffering friend and how to spot symptoms. For the friend of someone suffering a mental health issue, it is a difficult subject, most students, will not know the specifics of their friend's situation, for example, if a friend was suffering from hypomania, it may be hard to understand why they are being rude or angry sometimes, and may find it difficult help them. The app

should go through each mental health in detail, giving the effects and how they could help their friend. The sections on the app can be tracked, for how much each student has read, it could be required to read all the information on the app, to ensure students are aware.

When lecturer's login, they will be able to see the modules they teach. And any requests the students have. It may be difficult for some students to explain why they cannot hand in their work on time. Students will have the option of being anonymous, just being able to submit a reason why they cannot submit their coursework, which can be looked at by the lecturer. Who will able to see their reasons and have a discussion with them about it through the app.

As well as the app, students will have to be further educated about mental health issues. It has been overlooked by most schools, so as well as the app, all students should have at least one lecture through out the year about mental health, as well as informing people about the types of mental illness, they can get people into speak about their experiences and how to help.

Requirements
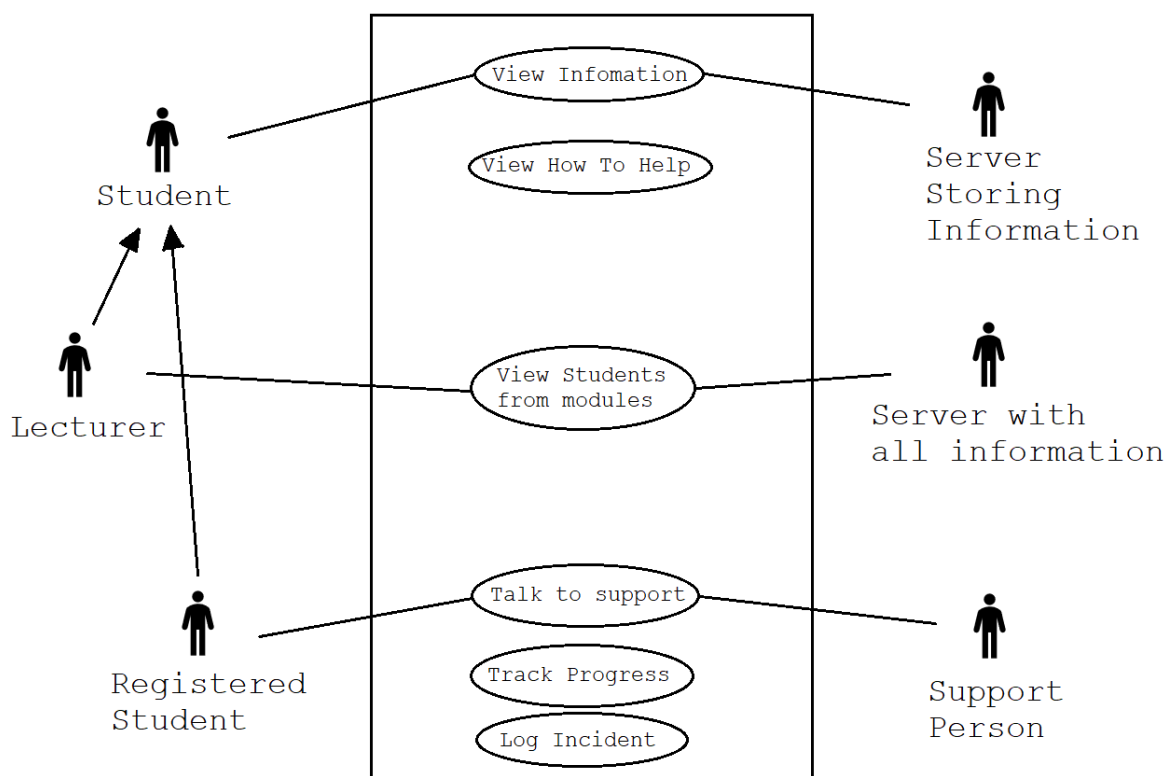
Here we see the users of the app, with different levels of access. All students and lecturers will be able to view the general information on mental health issues etc. Students who have been registered can also have a higher access level of being able to log incidents and inform their lecturers of how they are doing, if they are finding the work too much because of their condition. Lecturers are the only people available to view their modules and the students taking them, for each of these, they will be able to see a list of students which are struggling for each module.

User Story
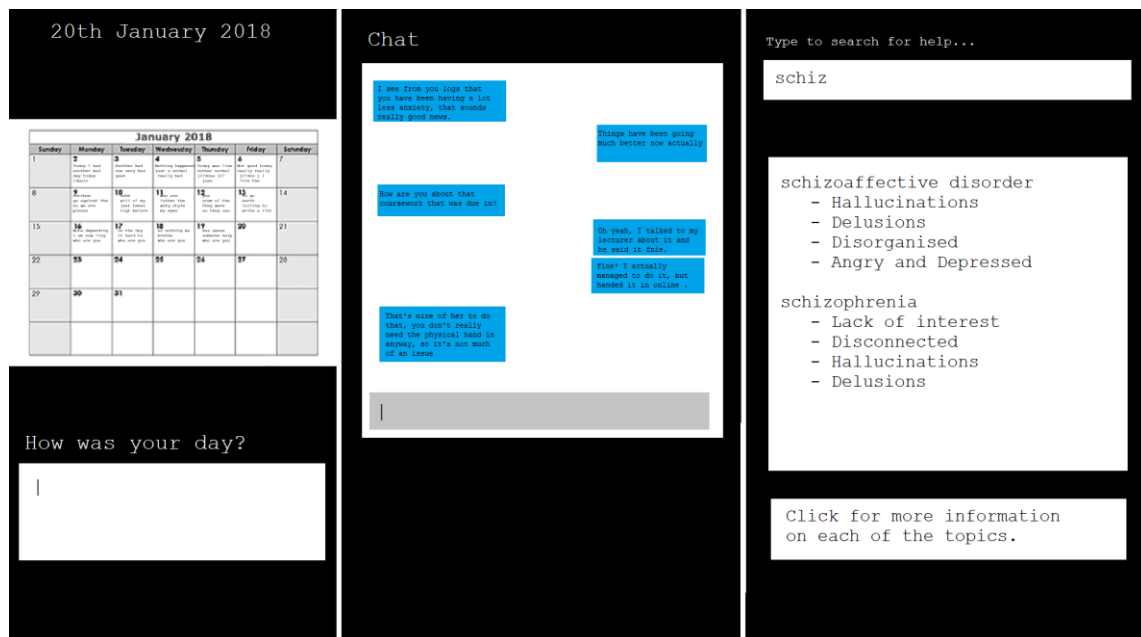
Kate is a first-year student and has just moved to university. They have a dissociative disorder, this sometimes causes them to dissociate during very stressful situations. They can often go long periods of time without realising what they have done. They will use the app to log whenever they disassociate. Kate realises that she has not attended her lectures for the last week and now has coursework due in on things that she has not studied. She will use the app to contact her lecturer. Who will give her extra time to catch up on the lecturers she has missed and allow her to still hand in the coursework. Kate's friends do not know how to behave, as sometimes it is like she is not there for short periods of time, Kate has not told her friends about her disassociate disorder. But her friends can use to app to learn about the different types of mental health and will better know how to manage it. If the app notices that she is logging a lot more instances of disassociation, the app will flag and be reviewed by someone who will talk with Kate. The app will be able to find that Kate's case is more severe than she thought and can her loggings can be used if she is referred to a professional.

Implementation
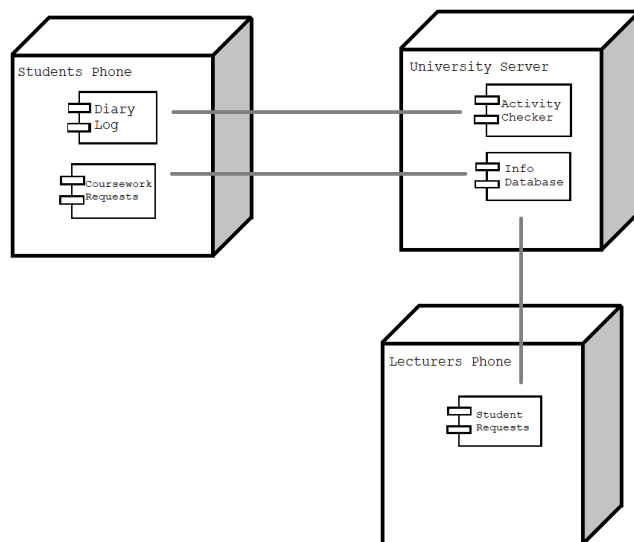
The app will use the existing system of the university registration process and will use the same servers used to host the rest of the universities websites. The student's diary logs will be securely stored on the university servers, and will be checked over by an activity checker program to check logging amounts so that users with lots of logs can be given to support staff to see how the students are doing.

Conclusion

Some issues that the app needs to deal with is the stigma around metal health. This will be dealt with by educating students on the range of mental health and their effects. Also, the app could be abused by people who do not have mental health issues, but this should be avoided by having a meeting before registering for the app, and by looking at the logs, it will be apparent if a student is trying to use the app to do less work. The software created will follow sound software engineering principles by being made in a modular way. The system will be able to be completed in the timescale as it is simple and can be made bug free. The main parts of the program are the logging system, to put into a diary how the student is doing. An updatable section containing information on mental health, that can be searched and ticked off by students reading it. A way for students to anonymously contact lecturers and explain why they cannot complete work, or how they are struggling. And finally, a way for students to contact support over text, and have them closer than before. Each of these features can be made in parallel and tested separately, so can all be managed and tested individually. The software will also be produced with in house programming standards with short functions and well documented code. An agile methodology will be used as requirements change and feedback comes from test users.

Some issues are that students may feel embarrassed about registering and not get the help they need, also lots of support staff would be needed and lecturers would also have to be behind that app for it to work. Lecturers might not like having to do extra work, and support staff may be overwhelmed if it is easier to contact them.

The app should be a much bigger help as it allows students to get in contact easier, and the logging feature will be important to show their own progression.