

5SENG007W Software Engineering Principles and Practice

Week 2 Seminar

Task 1. The first task for the topics tomorrow is to "warm up" to have the first insight of the reasoning leading to requirements elicitation.

Description: In your CWK1 you will have to come up with the first design of the chosen software app and one of the core components would be requirements elicitation.

Task 1.1 Consider a car booking system. Practice to reason about the system in the following style: who needs this system, which problems it will solve and which functionalities it will offer, this should lead you to the first picture of the context and stakeholders. Analyse what the system should do to enable its main functionalities, what data are to be used in the system.

Task 1.2 A software system you would design for your Coursework should have a registration functionality. Your task is to start building the picture - why there is a need for registration, what the registration will enable itself (links to other functionalities), what are the internal and external demands for the registration, including data protection, etc. This will involve, in particular, the analysis of the other problems - encryption, data regulations, GDPR issues.

Task 2. For CWK1&2 you would work on the design of a software app which will fall under one of the following themes below. Your task is to select, by the end of the seminar, one of these themes which will determine which specific application you will design.

One important problem – you need to narrow the scope/scale of the project to make it feasible. Discuss this with the Seminar lead.

To inform your choice, look for similar applications on the Internet, in particular using the links below. One technique we will explore during this seminar is Reverse Engineering – analyse the functioning system to have some understanding of its functionalities and what enables these functionalities. Think of the stakeholders of the system – what the stakeholders will require.

The common features of your applications (regardless of the) will be be

1. Two types of users – external user of the system and an Admin. Think of HOW these users are using the apps you are analysing. Come up with a few scenarios.

2. Data handling mechanism – think what data are involved in the systems you are analysing, what is the data flow.

Themes variations for the CWK

Theme/Link to Sample Example	Variations
Booking Application booking.com uber Royal Opera House	Hotel booking, Taxi Booking, Travel Booking, Theatre/Cinema Booking
Performance Monitoring Well Being Medical Information Kiosk for GP	Health, Study, Well Being, Computer (hardware, etc) Monitoring
Recommender Dietician	Nutritionist, Student Finance Advisor, Sport Activity, Mobile Phone selection
On-line Shopping Amazon	Travel shop, Supermarket, Music Shop, On-line Shopping for Students
Educational Software Matrix Calculator	Mathematics Assistant, Programming Assistant, Language, Science, Driving
Web App for Small Business Finance Consultant	Personal Trainer, Dietician, Financial Consultant, Hairdresser

Literature:

Sethi, R. (2022). *Software Engineering: Basic Principles and Best Practices*. Cambridge: Cambridge University Press. doi:10.1017/9781009051811 (available on-line from UoW library)

Sources:

Links in the table above, your search for the apps similar to the one you would design, on the Internet