HOMEWORK WEEK 5-6

(handout for students)

TASK 1 (Agile Techniques)

Question 1

Complete definitions for Scrum related key terminology provided below.
SCRUM CEREMONIES

· Product backlog refinement- product backlog refinement involves adding detail,estimates, and order to items in the product backlog. This is an ongoing process in which the product and development team collaborate on the details of product backlog items.

· Sprint planning.- The sprint planning process is a collaborative effort between a scrum master, who facilitates the meeting, a product owner, who clarifies the product backlog items and their acceptance criteria, and an entire agile team, which defines the project.

· Daily scrum.- The daily scrum, or stand up, is a short daily meeting that lets the team plan out the work for the day and identify potential obstacles.

· Sprint review.- A sprint review is one of the most important ceremonies in Scrum where the team reviews completed work and determines whether any additional changes are needed.

· Sprint retrospective-A sprint retrospective is a recurring meeting held at the end of the sprint cycle to discuss what went well and what needs to be improved for the next sprint.

SCRUM ROLES

· ScrumMaster- The scrum master has the responsibility of establishing scrum as defined in the scrum guide by helping all team members and the organisation understand the scrum theory and practice.

· Product Owner- On the scrum, the product owner is responsible for the project's outcome. The product owner manages and optimises the product backlog to maximise the product's value.

· Development Team.- A development consists of a group people collaborating to create software. This is complex, creative work that requires adaptability as technical challenges arise and business requirements change.

Question 2

You are leading a development team that was given a task to create a new yoga booking system.

High level description of the system is as follows:

· It has a very simple interface to accept user input (bookings) and display classes information

· All bookings, appointments, schedules etc should be stored in a SQL database.

· There is a 'backend' system that should be written in Python to handle the logic and manage the data flow.

Your team has two weeks to build a simple prototype that will be shown to the client to seek their feedback and discuss further enhancements.

TASK

· Break this task into smaller stories (chunks of work) for the team to work on.

· Assume that one person works on one task.

· Mark tasks that can be worked on in parallel and perhaps those that need to be worked on in particular order.

Firstly, i would do a meeting with my team to go over the requirements.In the first requirement we have to create simple interface to accept user input (bookings) and display classes information, i would allocate that task to the ux and ui designers so they can come up with a prototype of what the overall user interface needs to look like.I would then allocate the task of creating the login page to the frontend developers. This would ensure that the frontend developers were working on something whilst waiting for the ux designs to complete their mock ups.The login page is a functionality that can be created without a need for the backend systems.The backend developers could work on designing the database and they could also work on creating the overall logic for the backend system.Once i allocated those task i would give the team a three of days to work on their allocated tasks. After those three days have come to an end I would organise a sprint to discuss how everyones getting on.

TASK 2 (SQL)

Question 1

Design a cinema booking system.

Think how you would approach the problem and what are potential ways of solving it?

You do not need to write actual code, but describe the high-level approach:

· Draw a list of key requirements
 -A front page that displays all the movies that are showing currently
-A registration page for users to book their movies
-Create a search engine where you can include the users location
-Accessibility features: To include text to speech features
-Include a CAPTCHA page to ensure that we are dealing with a human this should come after the registration page
-once the user clicks there desired movie it should take them to a booking page
- once the user is on the booking page they should be able to book any available seats
-once they book their seat it should take them to a payment page
-The application should also include a the times the movies are showing

· What are your main considerations?

The main aspect of the project would be the movie times and the seats that are available at any particular time.

· What would be your common or biggest problems?
 Creating a project this big would pose a lot of challenges. One challenge would be how long it would take to create this project. Another challenge is constantly having to update and maintain the system, because new movies are constantly being shown the booking system would have to reflect that.The seating area could pose another problem if its not configured properly we have to make sure the we are constantly updating the seating reservations to reflect the booking arrangements made by the user. is not linked to the person Its say someone decides to book a chair and go to the checkout page whilst there waiting to pay can another person take their chair

· What components or tools would you potentially use?

 Pycharm

-Github

-Workbench

-Jira

-Git

· You are welcome to draw a diagram (a very simple one) for the process flow to explain how it is going to work.

Cinema booking system.

FRONT-END   →   BACK-END

Html

Css   JS   Python

                        Mysql

                            Django

Angular