SWE30010 Development Project 2: Design, Planning and Management
Sprint #1 Stage

Overview

Project Environment / Context
Your project proposal of "PHP-SRePS / the selected project" has been accepted and agreed by "People Health Pharmacy / Your Client". The entire development team is using the Scrum agile development process with a two-week sprint. Your team consists of 4 – 6 members. You can choose your own development languages (e.g. Visual Basic, C# or Java). You cannot use or customize any existing project (open or closed) because this is a "development" project not a "customization project.

This is Sprint #1.

Total work hours for the team in Sprint #1: For simplicity, the working time is 8 hours per week per person in your team. In fact, for sustainable development, it is suggested that each individual should spend one – two hours per working day for the entire 2-week sprint. So, a team of 6 people should have a total of 96 hours of work in your 2-week sprint whereas a team of 4 has 64 hours.

How your Sprint works: We are doing 2-week sprints.
Start Sprint #1 on Monday in Week 6 (Day 1 of Sprint #1).
Day 10 of your Sprint #1 will be Friday Week 7.

Suggested time frame of a 2-week sprint in Sprint #1 for DP2 purposes

Week	Your selected day	Tutorial day
6	Day 1	Feedback from Tutor
7	Day 6	Feedback from Tutor
8		Sprint review and Sprint retrospective

Sprint #1 Group: For the group tasks in Sprint #1, you need to register your team in Doubtfire under the "Sprint #1 Group Tasks" and submit it as a group. Please do not call yourself "Sprint #1 Group" as there will be potential conflicts in group names.

Note to students on total amount of hours in a sprint: For professional teams in real life, they use 40 hours per week per person for their effort estimation. However, as a student studying full time (that is, 4 subjects) in a semester, you should use **8 hours per person per week** for your effort estimation. So, a team of six can only work for a maximum of 96 hours in a 2-week sprint.

08 Pass Task 6.1P – Group Task

This document describes the pass task 6.1P, for your DoubtFire submission purposes.

Suggested Time Frame: Week 6
Start: Week 6
Feedback: Ask your tutor in Tutorials in Week 6
Due: Week 7, Tuesday, 9:00am

Table 1 Overview of 6.1P for Sprint #1

Purpose:	To practise the sprint planning meeting
Tasks:	**Sprint Planning Meeting** 1. Discuss the factors to be considered in selecting backlog items for development 2. Formulate the criteria for prioritizing the backlog items for development 3. Identify the sprint backlog items to be developed in Sprint #1 4. Break down the tasks required to develop the sprint backlog items selected in 1 above

Pre-req Task[1]	07 Pass Task 4.3P
Follow-up Task[2]	09 Pass Task 6.2P
Time:	Duration: 1 hour (at most)
Resources:	Lecture 01 Scrum https://en.wikipedia.org/wiki/Scrum_(software_development) Lecture 04 Sprint Backlog Lecture 04a WBS Lecture 04b Estimation Part 1
Feedback:	Ask your tutor for feedback

08 Pass Task 6.1P Sprint Planning Meeting [Group Task]

1. During the Sprint Planning Meeting, the Scrum team will choose the sprint backlog items from the product backlog items. They will first discuss their own criteria in choosing those backlog items to be developed first. The following is a list of factors that will be considered by the Scrum team in selecting their spring backlog items from the Product Backlog items.
   a. Business Value
   b. Development Effort
   c. Feature Dependency
   d. Date Needed / Timeline
   e. Risk involved (we delay this to Sprint #2 after the risk management lecture. However, if your team wants to consider it now, you are welcome to but beware.)
   f. Other factors (as you see fit)

   Discuss these factors and explain why they are important for the selection.

   Document the team's discussion with reasoning and submit it to Doubtfire.

2. Formulate your criteria for prioritizing the Product Backlog items and justify your choice

   Document the team's discussion with reasoning (why you think that these are reasonable criteria; and why you think that one has a higher weighing than the others OR all are of equal importance etc.) and submit it to Doubtfire.

3. Use your criteria in Task 2 above to select **the highest priority item** from the Product backlog that could be developed in one sprint [At the moment, a wild guess will be fine. Task 4 below comes the justification.]

   Note: In case, this item is too big for one sprint (if you feel that it is too big e.g. take 5 weeks to do – a wild guess will do for the moment), you need to break it down further to "smaller" ones so that you can select one that could be done in one sprint. On the other hand, if the feature is too small for one sprint (if you feel that it is too small e.g. it can be done in 1 week), you need to identity additional item(s) in the product backlog that could be done with the chosen one together in the same sprint.

Potential Questions that you may ask

Q.1 Why wild guess? How do we know for sure that the feature is too big or too small?

A. You never know until you perform the Task 4 below, especially in the first sprint or for the time being. In later sprints, there are other ways to do it but depends on your results in previous sprints.

Q.2 Then why are we doing this?

[1]You (as a group) need to complete the pre-req (pre-requisite) task before doing this task.
[2]You (as a group) need to complete this task in order to do the follow-up task because the follow-up task depends on your answer in this one. Strongly suggest you keep the same group if possible. Do the follow-up tasks before the next tutorial and then ask feedback in the tutorial.

A. I want you to go through the process and reflect. You have to pick one first, then "go through" Task 4 below to determine whether the one that you pick is good enough for the purposes or not. Also the focus here is to identify the highest priority feature based on your criteria.

Q.3 Would it be simpler if we just pick one and lie about the time/effort?
A. That is unprofessional!

Document the entire group's discussion with reasoning and submit it to Doubtfire.

4. Develop a WBS, Work Breakdown Structure, to break down all tasks involved in developing the backlog item selected in Task 3 above, making sure that all tasks can be done in one sprint. Remember to show the hierarchical relationship among the tasks, also their logical sequences in the WBS.

Note: **For students aiming at Credit or above**, there is a very strict requirement on the time estimates on the tasks in the WBS. See the relevant Portfolio Task Sheets for the Credit tasks.

Note: For simplicity, the time for your sprint planning meeting should be counted towards your total work hours. For a 2-week sprint, a scrum team spends 4 hours max to do the sprint planning meeting. Why 4 hours? It is because they have to break down the tasks to a level that they are comfortable to give an accurate effort estimate for each task. This takes time. The team also needs time to discuss – agree or disagree – the task breakdown as well as the effort estimates. For your scrum project in this subject, you should spend 1 hour max to do the planning meeting.

Note: Remember that at the end of a sprint, you aim to deliver something that is up to the quality standard as specified in your project proposal. Your task breakdown in your WBS must be able to show such intention.

Note: For each bottom task in the WBS, put in the number of (working) hours (i.e. your efforts) required to complete the task. Each bottom task in the WBS is supposed to be completed by a person within a day's work (in real project environment, for your daily standup purposes) or within 1 – 2 hours (for your DP2 purposes). Hence, your daily standup can be used to reveal whether you are able to complete a particular task on that day because, in DP2, we only spend 1 – 2 hours per day to complete the project.

Note: Add all the working hours required to complete all the bottom tasks in your WBS up. In case, the total is more than 2-week's work (see Note to Students on total amount of hours in Project Context above), it is an indication that the selected feature(s) is/are too big for the sprint. You may then need to revise your work in Task 2 above. Or, it may be that your group over-estimates the time required. So, you may need to revise your timing. The most important point here is that every group member is a responsible individual and is trustworthy, so be honest to yourself and to the group.

[**Students aiming at Pass grade**] Document your WBS and justify why you think that your WBS tasks are able to achieve the original intention (have a quality product in one sprint) and submit it to Doubtfire.

[**Students aiming at Credit or above**] There is a set of individual Credit Tasks (Credit Tasks 6.3 and 8.6) related to this. Basically, you are required to (1) perform WBS analysis to the specific requirements in Credit Task 6.3; and (2) review and reflect your estimation accuracy in Credit Task 8.6.

Submission Details and Assessment Criteria

Each team needs to create a new group on Doubtfire called it Your Sprint #1 Group. Each team needs to create a document (pdf) in **portrait** mode[3]. You need to organize yourselves so that a person in your team will be responsible for uploading the document to Doubtfire, with the following details:

- Your names and student IDs
- Your tutorial class (e.g Thu 12:30 ONL068 or Thu 12:30 ONL069)
- Your tutor's name
- Details (name and student ID) of your team members
- Your group responses to the tasks according to the corresponding instructions

Remember, whoever submits the document the latest will overwrite the previous submissions. Since Doubtfire does not keep the previously submitted documents, the previous submissions will be gone forever.

What to submit

Document all your work as mentioned above and submit it to Doubtfire as a pdf file as mentioned above.

[3]Landscape mode pdf does not work properly in Doubtfire.