Systems Analysis and Design **COSA190**

Assignment #1 (done in teams of two)

Due: Friday, February 11, 2022, 10:00 PM

Submit to Dropbox folder called Assignment 1

On this assignment, you will work in a team of two. Send an email, indicating who you are partnering with, to Alex (wangxi@saskpolytech.ca) before 4:00 p.m. on Friday, January 28th.

If you do not let me know by the deadline then you cannot choose your group and will receive a mark of 0 if you do not work in your assigned group. If you do not receive a response from me, then I did not get your email and you should resend or come talk to me.

**WHAT YOU ARE TO DO**

You will find a project proposal, **HockeyPoolProposal.docx**, in the Assignment1 Dropbox folder. You are to perform systems analysis to determine the “what” of Hockey Pool Project – what the project is intended to do. As part of your systems analysis, you will create a number of project documents that will record your findings.

For this assignment you must create and submit the following:

* List of stakeholders, including why the stakeholder is included
* Appropriate use case diagrams
* Questions to ask the client
* Use Case Scenarios for one of the identified use cases
* Activity diagrams for a use case
* User stories for a scenario

STAKEHOLDER LIST

Review the HockeyPoolProposal.docx file. Using the techniques described in class, create a list of possible stakeholders, including a brief (1 sentence) description of why each is included. Use this list of stakeholders to determine actors for the next step.

Use Case Diagrams

## Review the HockeyPoolProposal.docx file to determine what is internal to the system and what is external to the system. Using the techniques discussed in class identify the actors, then for each actor, determine how they interact with the system. From these interactions, determine the required use cases. Record these identified actors and use cases in a use case diagram. Remember you can separate diagrams by functionality.

Include your use case diagram in your submission document. You may use any drawing program you would like to draw the diagram: Visio and draw.io are good tools. You may also hand draw the diagram and scan it in to your submission document.

Client Questions

The details of how the hockey pool system will work are slightly vague. As you develop your use case diagram, there will likely be a number of questions that occur to you that you would normally need to ask the 2nd year students. Create a list of 5 questions that you would need to ask the students, then, pretending that you are the client, come up with likely answers to the questions.

List your 5 questions and your corresponding answers in your submission document.

User Scenarios

You have likely identified at least one use case that provides functionality for the **pool organizer**. Select one use case for that actor, then detail four scenarios based on that use case. Be sure to identify which use case your scenarios are based on.

Include your scenarios in your submission document.

Activity Diagrams

Not all scenarios require an activity diagram, but for this assignment, we want you to demonstrate that you can create an activity diagram! By creating the diagram, you will gain a better understanding of how the system works.

Using the same use case that you based your scenarios on, generate an activity diagram that describes the process involved in performing that use case. Hint: you should be able to trace your scenarios on this activity diagram!

Include your diagram in your submission document – again, you can use a program to draw your diagram, or you can draw it by hand and scan it in.

User Stories

Based on the use case and scenarios that you have previously detailed, identify 3 user stories that you could use in your development. For each user story, provide:

* A title which briefly describes the story and is written in active language
* A description which follows the “As a/an <actor>, I want to <activity>, so that <reason>” format described in class. Apply the INVEST principles to test that you are creating a good user story. Since we have not yet discussed estimation methods, and because you don’t have a client to help you set priorities, set the estimates all to 10 hr and the priorities all to Med.
* At least 3 business level acceptance tests that could be used to demonstrate that the user story has been successfully implemented, and which help to clarify the intent or constraints on the story. If relevant, include references to the user scenarios, activity diagrams or other supporting documentation which may be relevant to the story.

Include the 3 user stories in your submission document. Use the “Story card template.docx” to format your story cards.

PRESENTATION

The overall presentation of the documents you create is very important. Ensure you submit **one** document that contains a cover page detailing your name(s), the name of the course and the instructors’ names. Your solution to all parts of this assignment should be organized into **one** document and each page should be numbered appropriately.

ASSESSMENT

Marks will be distributed as follows:

|  |  |
| --- | --- |
| **[2 marks]**  **[5 marks]** | Stakeholders  Use Case Diagrams |
| **[3 marks]** | Client Questions |
| **[5 marks]** | User Scenarios |
| **[5 marks]** | Activity Diagrams |
| **[5 marks]** | User Stories |
| **[1 mark]** | Presentation |
|  |  |

Submission

Save your document as **CST###CST###COSA190Assignment1**(replacing CST1xx with your CST numbers). Once complete, submit your submissions document to the Assignment 1 folder in Dropbox.