Assignment 7

Creating An Initial Product Backlog

50 pts

**Learning Outcomes**

* Gain an understanding of the process of software development and the variety of contemporary development models. (a, h)
* Learn and apply skills critical to software development with a focus on object-oriented analysis, design, implementation, and testing. (a, b, c, i, j, k)

**Requirements**

Research has shown that brain training can improve processing speed, memory and reasoning ability in older adults (See http://www.cbsnews.com/news/brain-training-courses-may-keep-seniors-sharper-for-10-more-years/). All About Numbers has an idea for a new game, “Sum Fun,” which can be part of a brain training program. Their audience, however, is not limited to senior citizens; they plan to target anyone who enjoys number puzzles or is learning how to add.

All About Numbers envisions a colorful desktop application that is simple to use and incorporates a lot of variety in its game play.

The game consists of a 7 x 7 board of tiles and a queue of five tiles (Figure 1). Each of these tiles is numbered from 0 - 9. In addition, there is a 1-tile border of empty tiles surrounding the board.

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**Figure 1. “Sum Fun” game board and queue.**

The objective of the game is to remove all the tiles from the board. This is done by selecting the first tile in the queue and placing it into an empty spot on the board. If the surrounding tiles add up to the number on the just-placed tile modulo 10, all are eliminated. Furthermore, if three or more tiles are eliminated, the player receives a bonus of 10 \* number-of-tiles-removed. Each time a tile is selected, another tile is added to the bottom of the queue.

In the simplest version of the game, the player has 50 moves to eliminate all the tiles from the board.

In the more challenging version of the game, the player has an unlimited number of moves, but only has three minutes to eliminate all the tiles.

The game should allow for multiple players and keep track of each player’s best performance as well as the top-ten performances for each version of the game.

**Given this description, your team must create an initial product backlog.**

The items in the backlog may be at any level of abstraction, e.g., epic, feature and detailed.An epic story would be decomposed into several (or many!) feature stories and a feature story into some number of detailed stories.As a rule of thumb, detailed stories are those whose detail is sufficient enough and whose size is small enough to implement within a single sprint. Feature and epic stories may take weeks or months (many sprints) to implement.

For Estimates you must T-Shirts sizes: ‘S, M, L, XL’.To support creation of the backlog, we will hold a user-story-writing workshop next Wednesday. This workshop will be supplemented by a discussion forum on Blackboard.

For this assignment, I will play the roles of Product Owner and Scrum Master.

**Product Backlog Format**

|  |  |  |  |
| --- | --- | --- | --- |
| **Id** | **User Story** | **Priority** | **Estimate** |
|  | As a <type of user>, I want <some goal> [so that <some reason>].  May be accompanied by "conditions of satisfaction" or other details. | High,  Medium,  Low |  |
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**What to Submit**

1. A Word document containing the initial Product Backlog