CS555: Agile Methods for Software Development
Homework 03

Question 1: Assume that your company has formed a team to develop some new features for the Canvas iPhone app. Initial planning has determined that the work can be done in about 5 sprints of 2 weeks each by a team consisting of 4 Developers, 1 Scrum Master and 1 Product Owner.

Describe what happens (and who does it) at each of the following events for one of the "middle" sprints:
1. Sprint Planning for Sprint 3
2. Daily Scrum during Sprint 3
3. Sprint Review for Sprint 3
4. Sprint Retrospective for Sprint 3

Answer

1. **Sprint Planning for Sprint 3**

   Product Owner, Development Team and Scrum Master are involved in Sprint Planning. The product owner and development team decides on which backlogs to implement in the upcoming sprint. The tasks are divided and distributed to each team. The product owner discusses and identifies the needed features with the development team to set an aim for the next sprint. Then, scrum team crafts the spirit goal. Developers develop a task list and at the end the developers compute the time needed to complete the task list with product owner.

2. **Daily Scrum during Sprint 3**

   Daily Scrum meeting includes Development team and scrum master. Daily Scrum meeting is a daily 15-20 minutes meeting to discuss the progress which provides stability to the developers. They inspect the work which they have done since last scrum and what they will do before the next scrum. Developers track their progress with sprint backlog to determine the right flow in which they are working. Scrum master makes sure that the daily meeting is happening and problems are discussed in it.

3. **Sprint Review for Sprint 3**

   Sprint Review includes Product Owner, development team, stakeholders and scrum master. Usually, sprint review is done at the end of each sprint. It demonstrates features implemented during sprint to the end customer. Development team and other stakeholders meet and reviews the work that has been done during this sprint and based on the work that has been done, they determine whether any changes should be made in the Product

backlog or not. The product owner decides and approves the items which are done and which are not done. Development team discusses the issues they encountered during the sprint and how they resolved them. The team reviews of how the marketplace or potential use of the product might have changed, what would be the most valuable thing to do next and reviews the timeline, budget, potential capabilities, and marketplace for the next anticipated release of the product.

4. Sprint Retrospective for Sprint 3

Sprint Retrospective meeting consists of Development team and Scrum master. The meeting helps in checking the progress of the last sprint with respect to people, process and tools. The Sprint Retrospective occurs after the Sprint Review and prior to the next Sprint Planning. The meeting Identifies and order the major items that went well and potential improvements and creates a plan for implementing improvements to the way the Scrum Team works for the execution. Scrum Master encourages the Scrum Team to improve, within the Scrum process framework, its development process and practices to tries to make it more effective and enjoyable for the next Sprint. At the end, the team should have determined the areas to be improved.

Question 2: For each role on the team (Developer, Scrum Master, Product Owner) describe how they update or review the Burn-down chart at each of the events mentioned above, and why they perform each action.

Answer:

Burn-down charts are the graphical representation of accomplishments and remaining work. i.e. graphical view of estimated time to perform the work with respect to the actual time been taken.

Developer

The developers during the daily scrum meeting provides information about the work which has been done and incomplete work. The development team provides the time estimate for each user story they will be taking into consideration for the current sprint during sprint planning. They observe the burndown chart to determine what went wrong and what can be improved and estimate when all features would be completed during sprint review and sprint retrospective.

Scrum Master

The Scrum Master helps the development team in maintaining their burndown charts. Scrum master updates the burndown chart daily during the daily scrum meeting and is in a contact with the product owner regarding the progress of the team. Scrum master also provides details regarding the inconsistencies for the cases that occurred due to lack of resources. The

burndown chart and other artifacts are maintained automatically by scrum master and don't create any overhead for the development team.

Product Owner

During the sprint review and retrospective meetings, the product owner along with development team and scrum master reviews the burndown chart and makes decisions based on the result. Product owner is in charge of setting up the priorities for each user stories which will be taken into consideration for the sprint. Also, discusses with development team during sprint planning and provides the base inputs for the burndown chart.