Constance Xu
SSW-555
Homework 3
I pledge my honor that I have abided by the Stevens Honor System.

1. The roles of scrum are the following. There are the stakeholders and scrum team. The scrum team also has a scrum master and the rest of the team is split up into the development team (where they self-organize amongst themselves). From there, internal stakeholders exist and there are customers and/or users for the product itself. The product owner represents the customer and the customer's needs. They are the product visionary and they are responsible for the return on investment (ROI).They have the final say on the product and the releases of the product. Furthermore, the product owner manages and maintains the product backlog of the desired features and they decide when/whether they should release increments to users. The development team is a small, cross-functional, self-sufficient group. Usually, they can be from anywhere between 3 - 10 software developers. They are a self-organizing team so they get to choose who does what within the team and they all are in the same location physically. The scrum master helps the development team practice scrum. They are not the manager of the scrum team but they help manage scrum artifacts. Because they are not the manager of the team, they have no actual authority over the team. They do not make the technical or business decisions and developers report to the team (not the scrum master). They try to help minimize surprises by maximizing communication. To specify more clearly with the Driverless cars, the scrum master would be helping the software development team ensure that they get all the features they planned to get out during their sprint. The sprint would likely involve some driverless feature for the car (such as parallel parking unassisted) and then the product owner will ask for specific features for the car (although anyone can add features). The stakeholders are the driverless car company. They need to worry about the fact that people's lives and cars could be at stake and so there is a large monetary portion for them to ensure this product is built correctly.
2. For sprint 1, there needs to be sprint planning done. The product owner may identify a specific feature that needs to be done for this sprint. In this case, we can say that the product owner wants a working backup sensor feature, in which the car will be able to detect how close it is to another car from the rear end while doing parallel parking unassisted. Then, the developers that are a part of this sprint will help identify the tasks required to deliver this feature. They might say that they need to have something connecting the hardware to the software. Additionally, they will need a function that first checks for an object or car within a given range of the car (is there a car three feet away, five feet away, etc. while backing in). They might also need a function that first checks to see if the

driverless parallel parking system is activated in the first place. The developers will continue to develop a task list and then they will decide on how long it will take to complete each and every task. In this meeting, they will also decide when a task is “done”. A task is “done” when everyone agrees on what it means for it to be done.

3. A typical sprint would have the sprint backlog already planned out. They will be able to track their progress by using their task board and the Sprint burndown will also be updated as they go. There would be a daily Scrum meeting (daily standup) and the people involved in this would be the development team and the scrum master. The Scrum Master would ask questions such as “Where are we?”, “Any problems?”, and “Any questions?”. This would be regarding the tasks at hand. So, in terms of this first sprint, the Scrum Master might be asking about the sensor on the rear end of the car. As the sprint goes on, there would be a refinement of the Product Backlog and the developers and scrum master and everyone else would collaborate to ensure that this sprint gets done.
4. There is a sprint review. The people involved in the sprint review are the product owner, stakeholders, scrum master, and development team. The purpose is to review the Sprint results with the Product Owner. In this case, they would ensure that the parallel parking feature is up to the quality that the Product Owner expected. This meeting is to review progress and demonstrate the features implemented during the sprint for the customer. They would also reflect on this sprint and brainstorm/plan what they will do for the next sprint.
5. The team measures progress through the Burn Down Chart. This is a graphical view of accomplishments and remaining work. This is maintained by the development team and they may show the estimated/actual values line. The slope of the line is the velocity and this burn down chart is used to predict the end of the project.
6. Between sprints, the product owner and others can set new priorities. The product owner ultimately has say of what items are prioritized but during a sprint, the priorities and items to be done are locked.