

PAULA MANESE
CFG-NANODEGREE
FULL-STACK-1
SUBMITTED TO: MR. SCOTT ADAMS

HOMEWORK WEEK 5-6

TASK 1 (Agile Techniques)

Question 1

Complete definitions for Scrum related key terminology provided below

SCRUM CEREMONIES:

ANSWERS:

Product backlog refinement

- This is the type of scrum meeting that clarifies and decomposes the higher priority Product Backlog items. Some objectives of this meeting is to create PBIs (Product Backlog Items) that are: Independent, Negotiable, Valuable, Estimable, Small and Testable.

Sprint planning.

- This is where the type scrum meeting the Product Owner provides the product overview, marketing strategies. The Product owner also have this conversation with the development to talk about the sprint goal and this is where the process starts by setting an agenda for the entire process. In this phase also where topics like team capacity, prioritization of tasks are also discussed.

Daily scrum

- This kind of scrum meeting occurs everyday usually at the start of the working day. At this phase, the meeting helps us to guide what is the context work for that day and the development team inspects work towards completing the sprint backlog. It usually takes 15 mins.

Sprint review

- This is the kind of meeting where we gather everyone, the Scrum Master, the Development team and the Product Owner. This is the phase where some topics include: What's "Done" and "Not Done?", Demo the work, Review the key Metrics, Review and revise the product log.

Sprint retrospective

- Here in this type of meeting, the scrum master identifies what issues were caused throughout the entire cycle. The scrum master also must understand if the team was able to deliver planned story points or was there any problem within a particular process. Also this meeting is needed to learn how to avoid risks in the next sprint.

SCRUM ROLES:

Scrum Master

-Is the one usually responsible conducting the meetings, He/She, the Scrum Master is a professional who leads an entire team throughout a project using agile project management techniques. He/She also must understand if the team was able to deliver planned story points. organizes the Product Backlog and the Scrum board, Make sure that everyone in the team has Something to work on and also takes notes in the meetings and send the meetings in minutes.

Product Owner

- Is the one represents the business or user and is accountable for collaborating with the consumer to define what features will be in the product release. He/She also works between the stakeholders and the development team and He/She is the one who makes a product roadmap which has the vision and direction for the product road map.

Development Team

- Is comprised of professionals who deliver a potentially releasable Increment of “Done” product at the end of every Sprint. The Development team performs the tasks of designing, building, integrating, and testing product backlog items into increments of potentially shippable functionality.

Question 2

You are leading a development team that was given a task to create a new yoga booking system. High level description of the system is as follows:

- It has a very simple interface to accept user input (bookings) and display classes information.
- All bookings, appointments, schedules etc should be stored in a SQL database.
- There is a 'backend' system that should be written in Python to handle the logic and manage the data flow.
- Your team has two weeks to build a simple prototype that will be shown to the client to seek their feedback and discuss further enhancements.

TASK

- Break this task into smaller stories (chunks of work) for the team to work on.
- Assume that one person works on one task.
- Mark tasks that can be worked on in parallel and perhaps those that need to be worked on in particular order.

ANSWERS:

ATTACHED scrumboardjuly.pdf and yogabooking.jpg for the answers.
PLEASE ZOOM IN FOR THE yogabooking flow chart

TASK 2 (SQL)

Question 1

Design a cinema booking system.

Think how you would approach the problem and what are potential ways of solving it?

You do not need to write actual code, but describe the high-level approach:

- Draw a list of key requirements
- What are your main considerations?
- What would be your common or biggest problems?
- What components or tools would you potentially use?
- You are welcome to draw a diagram (a very simple one) for the process flow to explain \ how it is going to work

ANSWERS:

ATTACHED a sample flowchart on the cinema booking system flowchart for the diagram.

- What are your main considerations?
 - There are a lots to consider in this booking system, the movie, the schedules, the user, the payment options, the number of seats available.
- What would be your common or biggest problems?
 - If the movie will be blockbuster or many audience, maybe the server cannot handle the requests, and also other considerations like the schedule of the movie time to show, we need to check for example if its only in Polish language or with English Dubbing,
- What components or tools would you potentially use?
 - We always need the primary key for each categories like user, movie dates, movie place availability schedule to schedule the bookings correctly.