**Project Management**

**Assignment 1 (LA-1)**

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**Batch : B3**

1. **Define Sprints. How scrum will be planned and executed using Sprints?**

Ans:

**Sprints:** Sprints are short, time-boxed, iterative periods when a scrum team works to complete a set of tasks set at the beginning of the sprint. A sprint is supervised by the Scrum master.

The planning and execution of the sprints is done I the following way:

**Sprint Planning:**

When your staff is ready to begin a new sprint, you initiate the project with a sprint planning meeting. These meetings usually last one hour for each week of work you allocate to a project, such as a three-hour meeting for a three week sprint. This meeting includes all members of the development team, the product owner and scrum master.

The product owner arrives for the meeting with a presentation on the current backlog on the project, including prioritization of elements in the backlog. Working as a unit, the development team discusses how much of the backlog they can address in the chosen sprint period. Staff plot out work structures for the sprint period and move all tasks scheduled for completion during the sprint out of the product backlog and into the sprint backlog.

**Daily Scrums:**

Over the course of the sprint, daily check-ins allow staff to stay informed about their peers' progress and address any concerns. This brief meeting usually occurs at the start of the workday. It's common to hold the daily scrum as an informal meeting. During this meeting, staff members provide updates on their progress and plans for the day, and they can also address any areas where they are blocked and require completion of another task in the backlog to progress their work.

**Execution:**

The execution phase covers the length of the sprint and comprises the work staff completes towards clearing out the sprint backlog. Daily scrums provide team members with the opportunity to address their needs in order to perform their work more efficiently. The scrum master may make adjustments to tasks during the execution of a sprint to account for unforeseen circumstances, such as an unexpected struggle or an employee completing their work ahead of schedule and being available to assist with new tasks.

**Sprint Review**

A scrum master may schedule a sprint review meeting at the end of a sprint or after the team hits a milestone during a sprint. These meetings are an opportunity to demonstrate completed work and receive feedback from others. They also provide a valuable opportunity to show the results of a sprint, which can help maintain high morale. Most sprint review meetings are less than an hour long, and they can be either formal or informal in structure.

**Sprint Retrospective:**

A retrospective meeting at the end of a sprint iteration provides an opportunity to reflect. Staff and stakeholders share what went well and identify areas for improvement, and they examine the results of the sprint session. This provides valuable information for refining your company's approach to future sprints.

1. **What is the purpose of**
2. **Daily stand-up**
3. **Iteration review**
4. **Retrospective**

Ans: a. The Daily stand-up keeps the team informed about the progress of the ongoing sprint. It also helps flag the team blockers. it strengthens the team when everyone shares the progress they’re contributing to the team.

b. Iteration Review: The purpose of the iteration review is to measure the teams progress by showing the working stories to the product owner and other stakeholders to get their feedback. The iteration review provides a way to gather immediate, contextual feedback from the team’s stakeholders on a regular cadence.

c. Retrospective: In retrospective, at regular time intervals, the team the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly.

1. **What are the responsibilities of Scrum master?**

Ans: The scrum master ensures that the scrum framework is followed. The scrum master works with each member of the team to guide and coach the team through the scrum framework. The responsibilities of the Scrum master are as follows:

* Standups - Facilitate daily standups (or the daily scrum) as needed.
* Iteration/sprint planning meetings – Protect the team from over-committing and scope creep. Aid in estimation and sub task creation.
* Sprint reviews – Participate in the meeting and capture feedback.
* Retrospectives – Note areas for improvement and action items for future sprints.
* Board administration – Work as the administrator of the scrum board. Ensure that cards are up to date and the scrum tool, Jira software or otherwise, is working well.
* 1 on 1s – Meet individually with team members and stakeholders as needed. Iron out team disagreements about process and work styles. While many scrum practitioners are anti-1on1, as they believe these communications should happen during standups, some teams, particularly for new teams, prefer to have these regular face-to-face interactions with specific team members. The scrum master may decide that these individual interactions are crucial for team development and getting to know one another.
* Internal Consulting – Scrum masters should be prepared to consult with team members and internal stakeholders on how best to work with the scrum team.
* Reporting – Regular analysis of burndown charts and other portfolio planning tools to understand what gets built and at what cadence.
* Blockers – The scrum master aids the team by eliminating external blockers and managing internal roadblocks through process or workflow improvements.
* Busy work – If the scrum team isn’t humming, that’s the scrum master’s problem. Maybe that means fixing broken computers, moving desks around, or even adjusting the thermostat. Scrum masters should be comfortable doing just about anything to help their team and should be not slink away from grabbing coffees or some snacks if that’s what the team really needs.

4. **How Scrum of Scrum is different from Scrum meeting? What are benefits of it?**

Ans:

A scrum is a daily meet of about 15 minutes or so. The agile team, usually composed of between five to ten people, hunkers down and hashes out where the team stands in terms of work progress, what they’re working on now, how long it will take, and what potential obstacles exist.

A scrum of scrums involves multiple scrum teams meeting together by having one or two representatives from each separate scrum getting together. Hence, a scrum of scrums. Unlike regular scrum meetings, however, scrum of scrum gatherings don’t have to meet daily; twice a week is enough in most circumstances.

**5. Explain agile workflows w.r.t. Project management**

Ans:

* **What is an agile workflow?**

The agile workflow is defined as a set of stages involved in completing complex projects by breaking the production process into smaller individual cycles called *sprints*. At each sprint, customers and stakeholders provide their feedback, which is incorporated at the end of each sprint. This method enables developers to spot problems early on and fix them in a timely manner. It also improves the project’s efficiency and ensures that the final output meets the demands of the customers and stakeholders.

* **Steps involved in an Agile Workflow Lifecycle**

The agile workflow lifecycle generally remains the same regardless of the project involved. Here are the typical agile workflow steps:

1. **Ideation**: The first stage is the conceptualization of the project. This is when you plan and envision your project. Here, you define the business scope for each idea, develop your product backlog, and delineate your sprints.
2. **Inception**: Once you have determined that a project is viable, you create sprint teams and assign their respective tasks. Each team is given a set of goals and a timeframe to complete them. It is also at this stage when funding and resources are allocated.
3. **Iteration**: With the project requirements set and working environments prepared, the sprint teams can now get down to business. The team starts working on the first iteration and tackles the product backlog items.
4. **Release**: After an iteration, the product is released to the customers and stakeholders for feedback. These are incorporated into the development then tested again before the next sprint. A QA team tests the functionality of the product so it can be corrected before the final release.
5. **Production**: Once all testing and documentation are done, the product is passed into the production phase. At this stage, the team ensures the successful launch of the product and provides support for its release. They may also be required to guide the users of the final product.
6. **Retirement**: The agile workflow process ends with the successful development of the product. It includes notifying the customers about the new product or the migration of the new software.

* **How to create an Agile Workflow?**

To create your own agile workflow, you can follow these simple steps:

1. **Adopt the right Agile practices**: The Agile approach isn’t just about following a process. It involves a shift in mindset and an understanding of Agile principles. Help your team understand the rationale behind it so they can easily adapt to the new workflow.
2. **Choose a framework**: There are several types of agile workflow software you can utilise, including Scrum and Kanban. Determine which framework is most suitable for your organisation.
3. **Develop a roadmap**: Create a strategy that can guide your sprint teams in achieving the project goals. Plan the process, develop product backlogs, and prepare agile workflow tools. Prioritize tasks and define timelines.
4. **Assign sprint teams**: Form sprint teams and define the roles of each member. Assign specific tasks and responsibilities. Ensure that each team has the expertise to complete their sprint.
5. **Implement the agile workflow**: With product requirements and sprint teams in place, you can start implementing your agile development workflow. Aim for continuous improvement and quick delivery time.

### **6. What are stories, epics, and initiatives? Explain with suitable examples.**

Ans: **Stories**, also called “user stories,” are short requirements or requests written from the perspective of an end user.

E.g An application has a lot of options. Users need a hamburger menu to display options rather than seeing all at once.

**Epics** are large bodies of work that can be broken down into a number of smaller tasks (called stories).

**Initiatives** are collections of epics that drive toward a common goal.

Eg.

Let’s say your rocket ship company wants to decrease the cost per launch by 5% this year. That’s a great fit for an initiative, as no single epic could likely achieve that big of a goal. Within that initiative, there would be epics such as, “Decrease launch-phase fuel consumption by 1%,” “Increase launches per quarter from 3 to 4,” and “Turn all thermostats down from 71 to 69 degrees #Dadmode.”

**7. What are the responsibilities of the Program manager and Project manager?**

Ans: Project managers lead individual projects to completion, while program managers are in charge of ensuring groups of projects are carried out effectively. But how do the day-to-day of their roles differ?

A **program manager** oversees **groups of projects** that are linked through a common organisational goal—collectively called a program. The program manager works to make sure the program is aligned with the organisation’s larger strategy. They might:

* Work with project managers to plan project schedules, budgets, and goals
* Collaborate with executive management to help achieve an organisation’s goals and come up with new strategies
* Facilitate communication across different projects and cross-functional teams

A project manager makes sure individual projects are carried out on time, within budget, and in alignment with goals. They assemble team members, plan project costs, manage risks, and make sure team members are on schedule. Specific tasks can include:

* Plan and acquire project resources like budget, teams, and tools
* Communicate with stakeholders (including program managers) and project team members to ensure alignment around goals
* Maintain progress on projects by motivating team members, addressing pain points, and leading quality assurance

**8. What is Gantt chart? Explain its usefulness in managing a project.**

Ans: A Gantt chart is a project management tool that illustrates work completed over a period of time in relation to the time planned for the work. A Gantt chart can include the start and end dates of tasks, milestones, dependencies between tasks, assignees, and more.

Usefulness of Gantt chart in managing a project:

**Build and manage a comprehensive project**

Gantt charts visualize the building blocks of a project and organize it into smaller, more manageable tasks. The resulting small tasks are scheduled on the Gantt chart's timeline, along with dependencies between tasks, assignees, and milestones.

**Determine logistics and task dependencies**

Gantt charts can be employed to keep an eye on the logistics of a project. Task dependencies ensure that a new task can only start once another task is completed. If a task is delayed (it happens to the best of us), then dependent issues are automatically rescheduled. This can be especially useful when planning in a multi-team environment.

**Monitor progress of a project**

As teams log time towards issues in your plan, you can monitor the health of your projects and make adjustments as necessary. Your Gantt chart can include release dates, milestones, or other important metrics to track your project’s progress.

They make it easier to create complicated plans, especially those that involve multiple teams and changing deadlines. Gantt charts help teams to plan work around deadlines and properly allocate resources.

**9. Differentiate use of Gantt Chart in Agile and Waterfall planning.**

Ans:

**Gantt Charts and Waterfall planning:**

The waterfall model of project planning follows a linear approach where stakeholder and customer requirements are collected at the beginning of the project. From that, project managers create a sequential project plan, complete with milestones and deadlines. Every piece of the project relies on the completion of preceding tasks. This is favored by teams that focus on process (such as construction or manufacturing) and less on ideation or problem-solving as the steps need to be planned out in advance.

Gantt charts are typically preferred by project managers using waterfall. They determine a project schedule by breaking projects into manageable chunks of work and assigning start and end dates. It’s also helpful in identifying important milestones in your project. Milestones are accomplishments that teams should achieve on or ahead of schedule. They are optional but recommended.

**Gantt Chart and Agile Planning:**

On the other hand, the agile model of project planning values flexibility and adaptability. Instead of creating a full timeline with set dates, agile teams break projects into smaller iterations. At the beginning of a sprint, a team plans their work against the goals of the project over the course of the next two weeks. Once that sprint is over, the accomplishments and developments from it help to create the plan for the next sprint.

A Gantt chart can show how changing one task has the potential to impact the plan or the product roadmap. For agile teams, this is essential since stakeholder feedback is a large part of the methodology.

10) Create and Account on Jira for your project team ( One student will create account using college email id) and add your team members to your project, name your project.

Created account







