IT - ITeS SSC NASSCOM

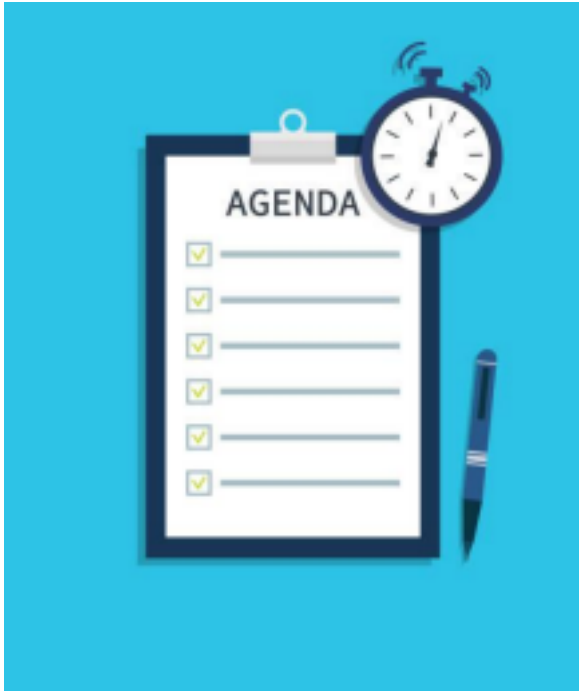
ICT ACADEMY

Nalaiya Thiran

Professional Readiness for **Innovation, Employability & Entrepreneurship**

Agenda

- Project Planning Methodologies
- Agile Planning
- Scrum Framework
- Learn Scrum with JIRA Software
- Project Planning Template ● Q&A



Project Development Process & Timelines

Project development process, timelines and

associated training & mentoring sessions are listed below.

1. Preparation	Phase 2. Ideation Phase 3. Project Design	Phase-I 4. Project Design Phase-II	5. Project Planning Development Phase Phase 6. Project	
	Aug – 17 Sept **2 Weeks** 19 Sept – 01 Oct **2 Weeks** 03 Oct – 15 Oct	**1 Week** 17 Oct – 22 Oct **4 Weeks** 24 Oct – 19 Nov		
In Progress.	**3 Weeks**	29		

Technology training sessions AMA / Expert Sessions

AMA Sessions for Faculty Mentors & Evaluators

Agile Planning

Overwhelmingly, the world is going agile – a whopping 71% of

organizations have adopted agile planning methodologies, and 60% of those companies increased their profits after doing so.

Agile planning is a project management style with an incremental, iterative approach. Instead of using in an in-depth plan from the start of the project—which for requirement changes throughout and relies on cons

Over a defined period of time, cross-functional teams work on product iterations and achieving OKRs (objectives and key results), organizing their work into backlogs that focus on delivering value. ***The ultimate goal of each iteration is to produce a working project.***

Different types of Agile Methodologies

Agile refers to the methods and best practices for organizing projects based on the values and principles documented in the Agile Manifesto. However, there's no one right way to implement Agile and many different types of methodologies from which to choose. Here are some of the most common Agile frameworks.

Kanban

Scrum

Kanban is a simple, visual means of managing

projects that enables teams to see the progress so far and what's coming up next. Kanban projects are primarily managed through a Kanban board, which segments tasks into three columns: "To Do," "Doing," and "Done."

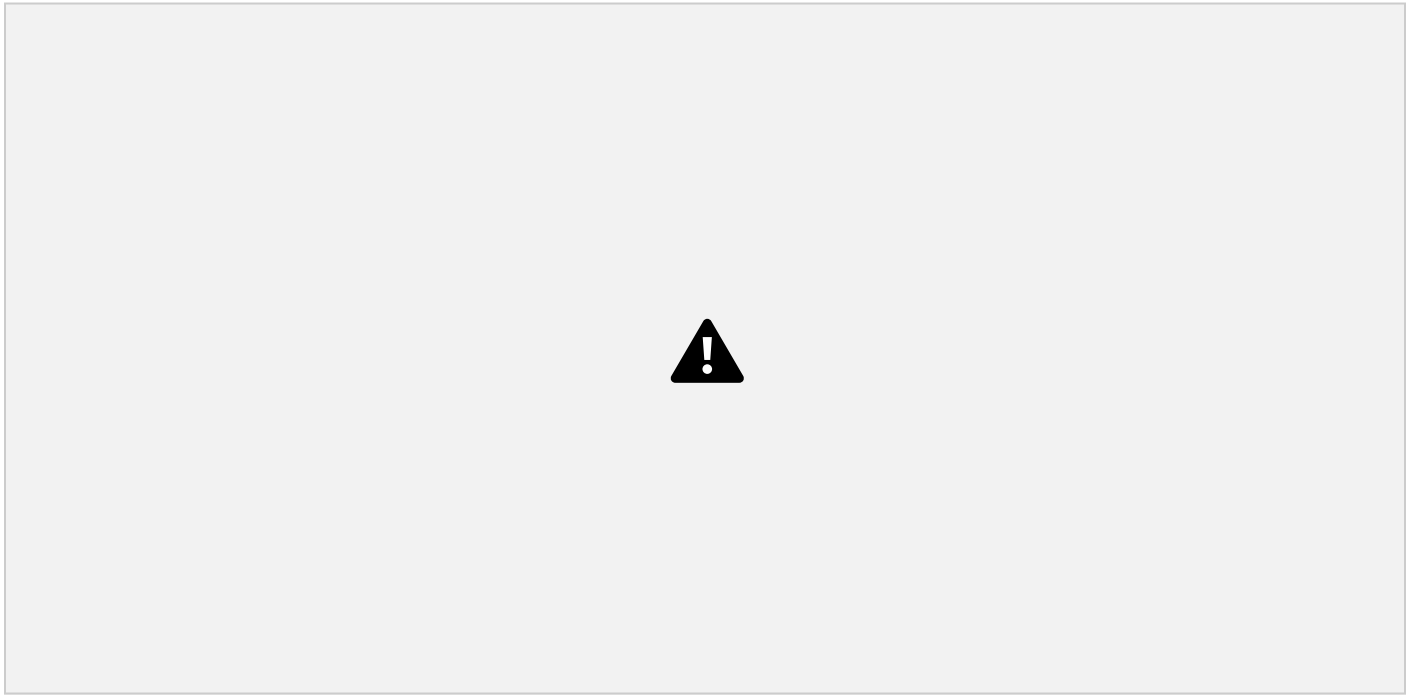
columns based on progress. Unlike Kanban, Scrum focuses on breaking a project down into sprints and only planning and managing one sprint at a time. Scrum also has unique project roles: Scrum master and product owner.

Scrum is similar to Kanban in many ways. Scrum typically uses a Scrum board, similar to a Kanban board, and groups tasks into

Agile Process (Scrum Framework)

Agile focuses on keeping the process lean and creating minimum viable products (MVPs) that go through several iterations before anything is final. Feedback is gathered and implemented continually and in all, it is a much more dynamic process where everyone is working together towards one goal.





Essential Characteristics of an Agile Planning

Before using any project planning method, such as Kanban boards, Gantt charts or Scrum, it's important to understand the basics. Here are the four essential characteristics of Agile you need to know.

1. An agile project plan is divided into releases and sprints

Agile planners define a release as creating a new product. Each release is broken down into several iterations called *sprints*. Each sprint has a fixed length, typically two weeks, and the team has a predefined list of items to work through in each sprint. **The work items are called *user stories***.

2. Planning is based on user stories

As mentioned above, a *user story* is an item that caters to users' needs. For example: *"As a team leader, I need to receive an email notification when a task is stuck or behind schedule."* in agile planning, the team only documents **what the user needs**.

3. Planning is iterative and incremental

All sprints are of equal length, and an agile team repeats the same process over and over in every sprint. *Each sprint should result in working features that can be rolled out to end-users.*

4. Estimation is done by team members themselves

A core ethic of agile planning is that development teams should participate in planning and estimation, instead of

management deciding on the work scope. In this spirit stage, agile planning allows teams to determine the complexity of user stories to carry out a plan

Agile Scheduling Process

Agile scheduling is perhaps the most “project managerial” of project management activities. The following are some useful guidelines for managing scheduling

- ❑ **Discuss the needed features** to address the goals. What components would make the product even more user friendly? What are users missing? What would they like to see?
- ❑ **Discuss the details** involved in each feature, and factors that can influence delivery. This would include the infrastructure required, risk, and external dependencies. Features with highest risk and highest value should be planned early in the release.
- ❑ **Decide how much work** you can commit to as a team in each sprint. This is usually based on the team’s velocity in previous sprints. You should take into account existing work on infrastructure or tools, and known interruptions such as support work.
- ❑ **List the stories and epics** for the release by their size. An *epic* is a larger dev task broken down into several user stories.
- ❑ **Add an iteration** to the plan so teams know what they’ll work on for the following one or two weeks.
- ❑ **Add stories to the iteration** until it reaches the maximum capacity.
- ❑ **Add more iterations** until all user stories are covered or remove lower priority user stories to adapt to the required time frame for the release.
- ❑ **Share the plan** using your agile management software of choice and ask for feedback to get commitment from all team members, product owners, and other stakeholders.

Sprint Planning Process

Here is how an agile team plans a new sprint, as part of an existing release plan:

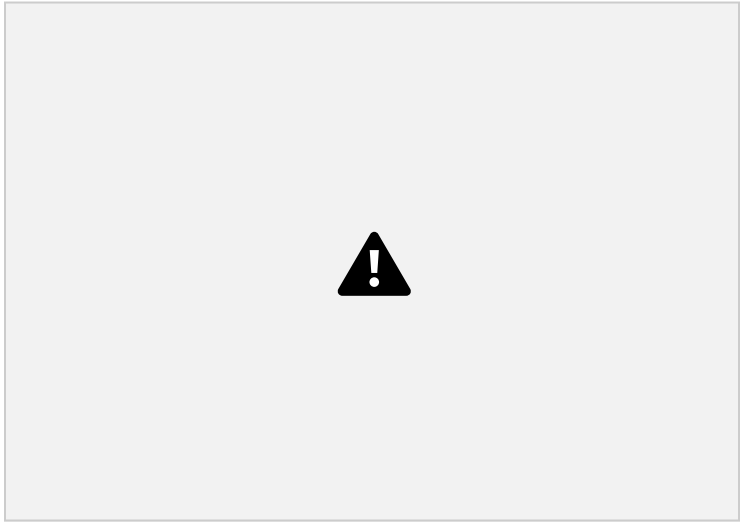
1. **Hold a retrospective meeting** to discuss the previous sprints and lessons learned.
2. **Run a sprint planning meeting** to analyze the release plan and update it according to velocity in recent sprints, changes to priorities, new features, or idle time that wasn't planned for in the release.
3. **Make sure user stories are detailed enough** to work on. Elaborate on tasks that are not well defined, to avoid surprises.
4. **Break down user stories into specific tasks**. Keep the size of tasks small, no more than one workday.
5. **Assign tasks to team members** and confirm that they are committed to performing them. In the agile/scrum framework this is done by the Scrum Master.
6. **Write the tasks on (physical) sticky cards** and hang them up on a large board visible to the entire team. All the user stories in the current sprint should be up on the board.

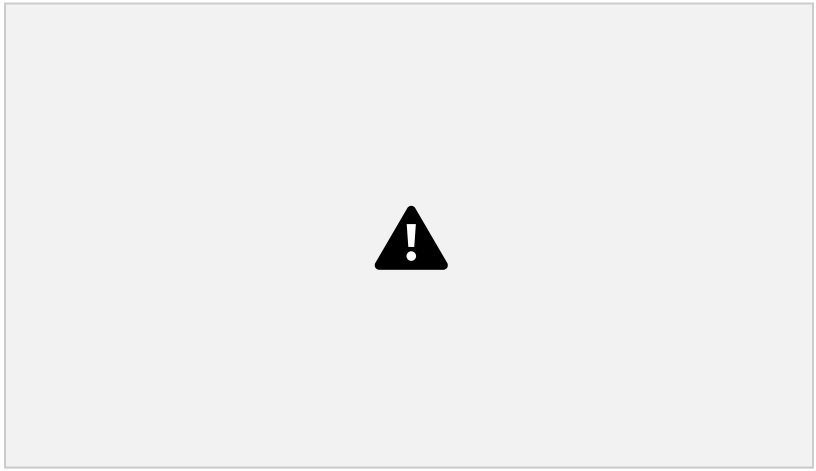
Sprint Planning Process

Here is how an agile team plans a new sprint, as part of an existing release plan:

7. Track the progress of all the tasks on a grid, by recording who is responsible for completing each task, estimated time to complete it, remaining hours, and actual hours used. This time tracking should be updated by all team members and visible to everyone.

8. Track velocity using a burndown chart. During the sprint, use the team's time tracking to calculate a chart showing the number of tasks or hours remaining, vs. the plan. The slope of the burndown chart shows if we are on schedule, ahead, or behind schedule.





Story Points & Estimation

In agile development, the product owner is tasked with prioritizing the backlog — the ordered list of work that contains short descriptions of all desired features and fixes for a product.

For product owners specifically, breaking down work items into granular pieces and estimates via story points helps them prioritize all (and potentially hidden!) areas of work. And once they have estimates from the dev team, it's not uncommon for a product owner to reorder items on the backlog.

Story points are units of measure for expressing an estimate of the overall effort required to fully implement a product backlog item or any other piece of work. Teams assign story points relative to work complexity, the amount of work, and risk or uncertainty. Values are assigned to more effectively break down work into smaller pieces, so they can address uncertainty.

Fibonacci number for Story Point

When the development team conducts an estimation, it is recommended to abandon the traditional “human-day” assessment method, using the point of the story point, using the Fibonacci number (1, 2, 3, 5, 8, 13, 21…) to estimate the story point (see Planning Poker article for detail).

Learn Scrum with JIRA Software

Scrum is one of the most popular frameworks for implementing agile. With scrum, the product is built in a series of fixed-length iterations called sprints that give teams a framework for shipping on a regular cadence. Step-by-step instructions on how to drive a scrum project

Step 1: Create a scrum project

Step 2: Create user stories or tasks in the backlog

Step 3: Create a sprint

Step 4: Hold the sprint planning meeting

Step 5: Start the sprint in Jira

Step 6: Hold the daily standup

meetings Step 7: View the Burndown

Chart

Step 8: View the sprint report

Step 9: Hold the sprint review meeting Step

10: Hold the sprint retrospective meeting

Step 11: Complete the sprint in Jira Step 12:

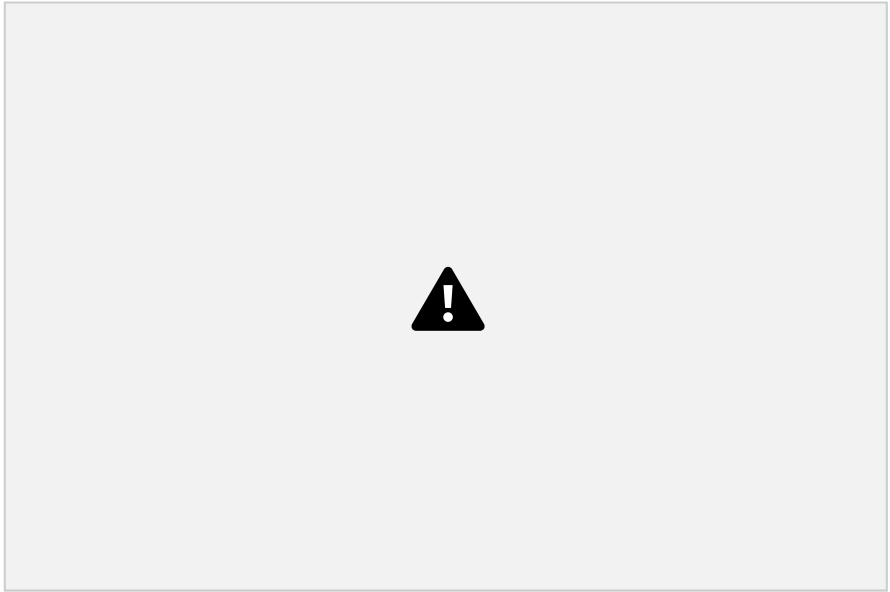
Repeat from step 2

Reference:

https://www.atlassian.com/agile/tutorials/how w-to-do-scrum-with-jira-software

Agile Project Management — Best Agile Practices for Teams

- ❑ Iterative Development
- ❑ Daily Stand-ups
- ❑ Identifying the value
- ❑ Using the project management tools
- ❑ Setting communication guidelines
- ❑ Visualizing the workflows
- ❑ Limiting work in progress
- ❑ Reducing waste
- ❑ Continuous and constructive feedback
- ❑ Continuous improvement
- ❑ Test-driven development
- ❑ Small releases
- ❑ Focusing on flow
- ❑ Use burndown charts for sprints
- ❑ Creating project backlog and project vision together



Project Evaluation & Metrics

Completion of each pahse of project will enable the associated evaluation metrics to assign the scoring.

Phase

1. Preparation

2. Ideation Phase
3. Project Design Phase-I
4. Project Design Phase-II
5. Project Planning Development Phase
6. Project

Completed. Completed. In Progress.

Completed. **3 Weeks** Aug – 17 Sept

29 **2 Weeks** 19 Sept – 01 Oct

2 Weeks 03 Oct – 15 Oct

2 Weeks 17 Oct – 22 Oct

4 Weeks 24 Oct – 19 Nov

Assignments, Quizzes

Design Thinking

Agile Methodologies

1. Technical Training, 8 3 3 3 5%

2. Innovation & Problem Solving

3. Project Design using

4. Requirement Analysis using Critical Thinking

6. Project Planning using

7. Coding & Solutioning 5

15%

10%

10%

10%

5%

4

8. Unit Acceptance Testing

5. Technical Architecture

3

5%

5%

4

9. Performance Metrics

[1] Technical Evaluation Metrics : 9 Nos (70 %)

5%

Sub Evaluation Metrics : 34

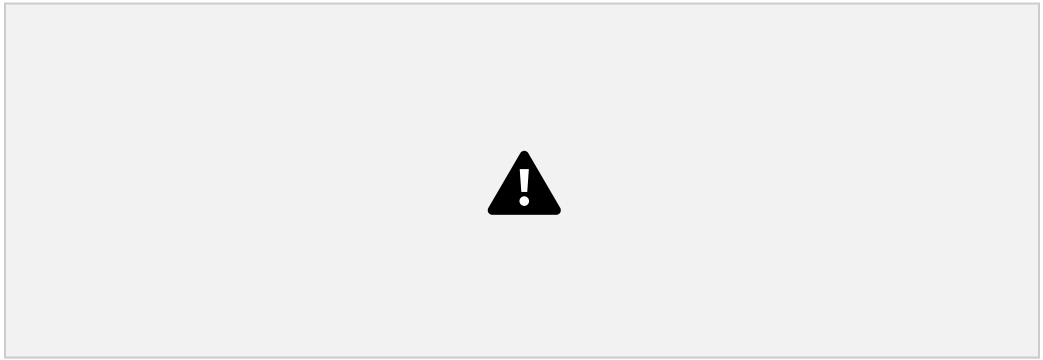
Professional Evaluation Metrics : 5 Nos (30 %)

Sub Evaluation Metrics : 17

Phase-5: Project Planning Phase

During this phase, the project delivery will be planned in agile development mode. Full Submission – 4 Marks

6. Project Planning using Agile Methodologies 5%



6.1 Project Milestones & Tasks 6.2 Sprint Delivery Plan

6.3 Project Progress Tracking 6.4 Project Planning Tool

Not Submitted – 0 Marks
Partial Submission – 2 Marks

Number of Sprint planning meetings organized,

Minutes of meeting recorded. Stand-up Calls
0 – 4 : 0, 5 – 10 : 1 , >10 : 2

Full Submission – 2 Marks Not Submitted – 0 Marks
Partial Submission – 1 Mark

No tools used – 0 marks Any one tool – 2 marks

Project Planning Template