SNS COLLEGE OF TECHNOLOGY

Coimbatore-37.
An Autonomous Institution

COURSE NAME : 19CST201-Agile Software Engineering
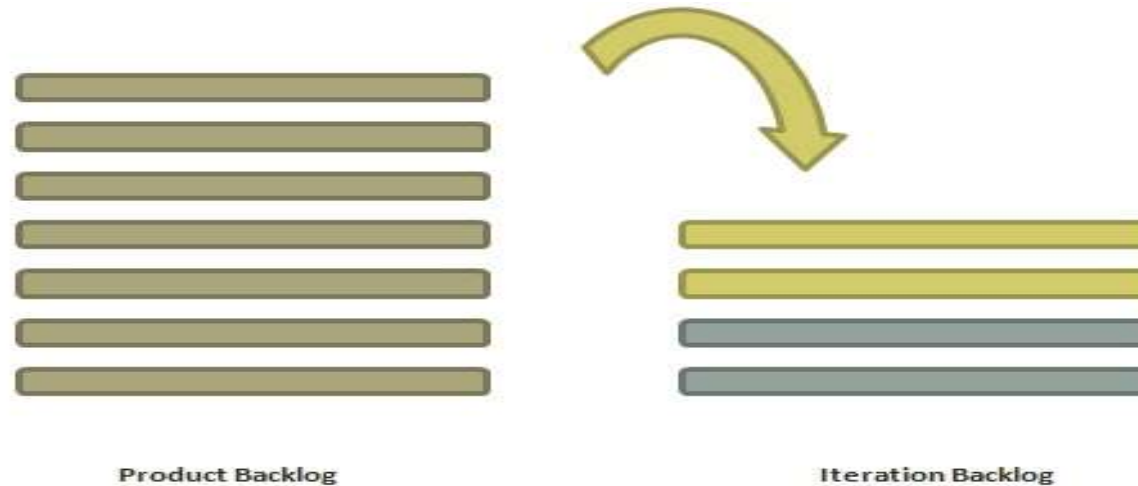
II YEAR/ III SEMESTER

Topic: Iteration planning

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The purpose of iteration planning is for the team to complete the set of top-ranked product backlog items. This commitment is time boxed based on the length of iteration and team velocity.

Product Backlog

Iteration Backlog

- **Scrum Master** – The scrum master acts as a facilitator for the agile delivery team.

- **Product Owner** – The product owner deals with the detailed view of the product backlog and their acceptance criteria.

- **Agile Team** – Agile delivery defines their tasks and sets the effort estimates required to fulfil the commitment.

- Items in product backlog are sized and have a relative story point assigned.

- Ranking has been given to portfolio items by the product owner.

- Acceptance criteria has been clearly stated for each portfolio item.

- Determine how many stories can fit in an iteration.

- Break these stories into tasks and assign each task to their owners.

- Each task is given estimates in hours.

- These estimates help team members to check how many task hours each member have for the iteration.

- Team members are assigned tasks considering their velocity or capacity so that they are not overburdened.

Velocity Calculation

- An agile team calculates velocity based on past iterations.

- Velocity is an average number of units required to finish user stories in an iteration.

- Planned velocity tells the team how many user stories can be completed in the current iteration.

- If the team quickly finishes the tasks assigned, then more user stories can be pulled in.

- Otherwise, stories can be moved out too to the next iteration.

Story Point: Points, Hours or time to complete the given task or story**.**

Task Capacity

- The capacity of a team is derived from the following three facts –

- Number of ideal working hours in a day

- Available days of person in the iteration

- Percentage of time a member is exclusively available for the team.

- Suppose a team has 5 members, committed to work full time (8 hours a day) on a project and no one is on leave during an iteration, then the task capacity for a two-week iteration will be –

$$5 \times 8 \times 10 = 400 \text{ hours}$$

Planning Steps

- Product Owner describes the highest ranked item of product backlog.

- Team describes the tasks required to complete the item.

- Team members own the tasks.

- Team members estimate the time to finish each task.

- These steps are repeated for all the items in the iteration.

- If any individual is overloaded with tasks, then his/her task is distributed among other team members.

References

- Lisa Crispin, Janet Gregory, "Agile Testing; A Practical Guide for Testers and Agile Teams", Addison Wesley, 3rd Edition, 2015.