



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE NAME : 19CS302 AGILE SOFTWARE ENGINEERING

II YEAR /III SEMESTER

Unit 2- Agile Development

Topic 6: Agile-Kanban



Brain Storming



1. How to reduce the burden of work load in SW development?



Kanban



- Kanban means “Visual Card” in Japanese.
- Kanban is a method applying **just-in-time** delivery while not overloading the team members.
- In Kanban, the process, from definition of a task to its delivery to the customer, is displayed for stakeholders to see.
- Team members pull work from a queue when they have excess capacity.



Core of Kanban



- Kanban Development is an approach to incremental, evolutionary process and systems change for organizations.
- Teams practicing other methodologies can use Kanban to improve their existing processes.
- Kanban has 2 core concepts:
 - Visualize the work
 - Limit the work in process



Visualizing the Work



- Kanban teams use Kanban Boards to represent the work and workflow.
- After visualizing the work, the stakeholders will be able to monitor the flow of work.
- The bottlenecks in the flow are realized by the stakeholders.



Limiting Work-in-Progress



- Kanban limits work-in-progress to realize the bottlenecks, to stimulate collaboration, and to continuously improve the system.
- By focusing on flow, Kanban emphasizes **finishing work over starting new work.**
- Limiting the amount of work-in-progress prevents overproduction.
- When there are too much unfinished work, stakeholders re-direct their attention to finishing and collaborate for unfinished work.



Guidelines of Kanban



- Kanban has **9 guidelines**:
 - 4 **basic principles**
 - 5 **core properties.**
- The principles motivate you how you should think, whereas the properties motivate you how you should do.



4 Basic Principles



- Start with Existing Process
- Agree to Pursue Incremental, Evolutionary Change
- Respect the Current Process, Roles, Responsibilities and Titles
- Leadership at all Levels



5 Core Properties



- Visualize the Workflow
- Limit Work-in-Progress
- Measure and Manage Flow
- Make Process Policies Explicit
- Search and Apply Improvement Opportunities



Kanban Development Lifecycle



- Kanban Software Development is the application of Kanban principles to software development.
- Steps
 - Flexibility in Planning
 - Minimizing Cycle Time
 - Efficiency Through Focus
 - Making Metrics Visual
 - Moving Toward Continuous Delivery



Benefits of Kanban



- Kanban delivers features faster by shortening cycle times.
- Kanban is responsive to change.
- Where priorities change very frequently, Kanban is ideal.
- Kanban can be started with a few changes in the environment.
- Kanban reduces waste in the system.



Video-Session



- <https://youtu.be/GZH5qC2dYTg>



Assessment 1



1. List out the Agile Testing methods?

Ans : _____

2. List out the Phases in Agile SDLC?

Ans : _____





References



1. Roger S. Pressman, Software engineering- A practitioner's Approach, 10th Edition, McGraw-Hill, 2017.
2. Ken Schawber, Mike "Agile Software Development with Scrum" Pearson Education, 2nd Edition, 2015.

Thank You