## [CPE 408] - [Emerging Technologies in CpE]

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Course/Section	CPE 408 - CPE43S1	Activity	Agile Scrum Software Development Lifecycle
Instructions	How is Agile Scrum different from other SDLCs?     What are the roles in a team practicing Agile Scrum?     What are the different stages in an Agile Scrum SDLC?     Identify the key concepts to be implemented on executing Agile Scrum		
Answers	<ol> <li>Agile Scrum differs with the other Software Development Life Cycles since it is both iterative and incremental and teams can work in small bits of the developed software referred to as increments. Scrum encourages such values as flexibility, constant participation of the customer and responsiveness to changing needs unlike in traditional models such as the Waterfall method which operates in a rigid, linear manner. This responsiveness has the advantage of delivering functionality on faster software and better customer satisfaction</li> <li>Agile Scrum is an changeable, protracted SDLC producing little-by-little, useful software components as well as rapidly adapting to change. It involves Product Owner that controls the backlog, Scrum Master that governs the team, and Developers that creates the product. There are Backlog Creation, Sprint Planning, Sprint Execution, Daily Standups, Sprint Review, and Sprint Retrospective. Time-boxed sprints, incremental delivery, daily collaboration, continuous improvement, self-managing teams and transparency are key terms.</li> <li>The agile scrum process is done into various steps or occasions. It begins by the Product Backlog Creation in which all the possible characteristics and demands are enumerated. This will be followed by the Sprint Planning, a meeting during which the team chooses what to finish in a certain time box, or a sprint that normally lasts two to four weeks. In the Sprint Execution the involved team executes the chosen tasks and conducts Daily Scrum Meetings in order to monitor the progress of a project and solve problems. A Sprint Review is also done once every sprint to show the stakeholders what has been done. Lastly, using</li> </ol>		

- Sprint Retrospective, the team examines the sprint and knows where to focus its efforts.
- 4. In order to be able to apply Agile Scrum successfully, a number of important ideas have to be adopted. Among those are time-boxed sprints to concentrate on the development, regular deployment to release working software as soon as possible, standing meetings daily to maintain communication inside the teams, and constant feedback to adapt to the changes quickly. Moreover, Scrum is focused on self-organizing teams who plan their jobs on their own, and visibility via visual design such as Scrum boards or other burndown charts to analyze the progress.

## References

- 1. <a href="https://www.atlassian.com/agile/scrum">https://www.atlassian.com/agile/scrum</a>
- 2. <a href="https://scrumguides.org/scrum-guide.html">https://scrumguides.org/scrum-guide.html</a>
- 3. <a href="https://www.mountaingoatsoftware.com/agile/scrum">https://www.mountaingoatsoftware.com/agile/scrum</a>
- 4. <a href="https://www.atlassian.com/agile/scrum">https://www.atlassian.com/agile/scrum</a>