

# Software Development Life Cycle

## Overview:

*Scrum* is a specific Agile framework that breaks down the development process into fixed-length iterations called sprints, usually lasting two to four weeks. It has defined roles, ceremonies, and artifacts.

## Strengths:

*Defined Roles:* Specific roles like the Scrum Master, Product Owner, and Development Team provide clarity in responsibilities.

*Regular Checkpoints:* Daily stand-up meetings, sprint reviews, and retrospectives ensure continuous communication and improvement.

*Structured Approach:* The fixed-length sprints, product backlogs, and sprint backlogs provide a clear roadmap for the development process.

## Limitations:

*Not Ideal for All Projects:*

Scrum works best for projects where requirements can evolve and be reprioritized. It's not always suitable for projects with fixed requirements or for maintenance tasks.

*Depends Heavily on Commitment:*

If team members aren't committed or lack the discipline to follow Scrum practices rigorously, the process can quickly break down.

*Requires Close Collaboration:*

Scrum emphasizes close collaboration among team members. If team members are geographically dispersed or prefer working in isolation, Scrum might not be the best fit.

## Suitability for the project:

For the AI learning tool kit, the best software development life cycle model that can be used is *Scrum* as each person should work with defined roles and there should be a particular structure for the development of the project.