# Different Agile and Lean project management frameworks

# **Agile Frameworks:**

Scrum:

Scrum is one of the most popular Agile frameworks. It uses iterative development, with fixed-length iterations called sprints. It includes roles like Product Owner, Scrum Master, and Development Team, and uses artifacts like Product Backlog, Sprint Backlog, and Burndown Charts to manage work. Scrum master makes sure team uses scrum principles.

# Extreme Programming (XP):

Extreme Programming is an Agile methodology that emphasizes engineering practices to ensure high-quality software development. It includes practices such as test-driven development (TDD), pair programming, continuous integration, and frequent releases.

### Feature-Driven Development (FDD):

Feature-Driven Development is an Agile framework that focuses on building features iteratively and incrementally. It involves creating a feature list, planning, designing, and building features in short iterations.

#### Dynamic Systems Development Method (DSDM):

DSDM is an Agile framework that emphasizes active user involvement throughout the project. It focuses on delivering business value early and frequently. DSDM provides a framework for project management and governance.

#### Crystal:

Crystal is a family of Agile methodologies that vary based on the size and criticality of the project. It emphasizes communication, simplicity, and frequent delivery. Crystal methodologies are tailored to fit the specific needs of each project.

Agile Unified Process (AUP):

Agile Unified Process is a simplified version of the Rational Unified Process (RUP) tailored for Agile development. It provides guidance on iterative and incremental development, with an emphasis on architecture, risk management, and high-quality software.

# Scaled Agile Framework (SAFe):

SAFe is a framework for scaling Agile to larger enterprises. It provides roles, practices, and guidelines for coordinating Agile teams across multiple levels of an organization, from teams to programs to portfolios.

# Large Scale Scrum (LeSS):

LeSS is a framework for scaling Scrum to larger organizations. It promotes simplicity, transparency, and customer focus while providing guidance on coordinating multiple Scrum teams working on the same product.

### Lean Frameworks:

#### Kanban:

Kanban is a Lean framework that visualizes work as it moves through various stages of a process. It focuses on continuous delivery and limiting work in progress (WIP). Kanban boards typically consist of columns representing different stages of work, with cards representing tasks or user stories.

#### Lean Software Development:

Lean Software Development is based on Lean manufacturing principles and focuses on delivering value to customers with minimal waste. It emphasizes principles like eliminating waste, amplifying learning, empowering teams, and delivering as fast as possible.

## Lean Startup:

Lean Startup is a methodology for developing businesses and products. It emphasizes validating assumptions and hypotheses through experimentation and learning from customer feedback. Lean Startup principles can be applied to product development within Agile frameworks.