PROJECT METHODOLOGIES

1.Waterfall model:

Structure: Linear and sequential (one phase must finish before the next starts).

Best for: Well-defined projects with stable requirements.

Pros: Easy to manage, clear milestones.

Cons: Inflexible, hard to adapt to changes.

2.Agile Model:

Structure: Iterative and incremental (work in short cycles called sprints).

Best for: Projects needing flexibility and frequent feedback.

Pros: Adapts to change, regular feedback, continuous improvement.

Cons: Requires strong collaboration and discipline.

3. Scrum (Agile Framework):

Structure: Roles (Scrum Master, Product Owner), time-boxed sprints, defined ceremonies.

Best for: Small teams working on fast-paced, evolving projects.

Pros: Clear roles, frequent deliverables.

Cons: Can be rigid if misapplied.

4.Lean

Structure: Focuses on delivering value by eliminating waste.

Best for: Fast-paced development with a focus on efficiency.

Pros: Faster delivery, customer focus.

Cons: Requires deep understanding of processes.

5. Extreme Programming (XP)

Structure: Agile methodology with a focus on engineering practices.

Best for: High-risk projects needing high-quality code.

Pros: Emphasis on testing, code quality, and communication.

Cons: Demanding on team skills and communication.