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ASSIGNMENT 7

Write a summary on different Project Methodologies.

**1. Waterfall Model**

* **Description**: A linear, step-by-step approach where each phase (requirements → design → implementation → testing → maintenance) is completed before moving to the next.
* **Example**: Construction projects, where requirements and designs must be finalized before building starts.
* **Best For**: Projects with fixed requirements and clear objectives.

**2. Agile Model**

* **Description**: An iterative and flexible approach where the project is broken into small parts (sprints), with regular feedback and continuous improvement.
* **Example**: Software development like mobile apps or web platforms, where client feedback drives changes.
* **Best For**: Projects with changing requirements and close client involvement.

**3. V-Model (Validation & Verification Model)**

* **Description**: An extension of the Waterfall model where each development stage has a corresponding testing phase (e.g., design → design testing).
* **Example**: Embedded systems in medical devices or automotive software, where rigorous testing is crucial.
* **Best For**: Projects that require high reliability and compliance with standards.

**4. Spiral Model**

* **Description**: Combines iterative development with systematic risk analysis. The project goes through repeated cycles (planning → risk analysis → development → evaluation).
* **Example**: Large software systems like banking applications, where risk assessment and incremental releases are critical.
* **Best For**: Complex, high-risk projects.