Assignment – 07

DIFFERENT PROJECT METHODOLOGIES:

1.AGILE METHOD: Agile is an approach to project management that is built on small, incremental steps. It is designed to be able to pivot and incorporate changes smoothly, making it popular among projects where unknowns and new developments are common. Agile is best used in projects in industries that expect a certain amount of volatility, or in projects where you will not be able to know every detail from the outset. Agile project management is very popular in software development, where changes are almost constant. You might also use an Agile approach when you are launching a new product and are not fully aware of where pain points might lie until closer to the end of the project.

2.WATERFALL METHOD: Waterfall is often called the traditional project management approach. In traditional approaches, projects are completed one stage at a time and in sequential order like a waterfall would flow down a collection of rocks. Waterfall is an approach often used in projects with strict constraints and expectations, or very few anticipated changes to the project plan. The Waterfall approach can be effective for projects like building houses, where one stage must be completed before others can begin, or where timelines, budgets, regulations, or other factors make it necessary for your project to have a predictable outcome.

3.SPIRAL METHOD:It is for risk management. It is characterized by a cyclical, rather than linear, process, where each loop represents a phase of development, including planning, risk analysis, engineering, and evaluation. This approach is particularly well-suited for projects with high levels of risk or uncertainty, as it allows for early risk assessment and mitigation throughout the development process.

4. V MODEL:It consists of two phases “verification” phase and “validation” phase.

Steps like:

1.Requirement gathering

2.System analysis

3.Software Design

4.Module design

5.Coding/implementation

6.Unit testing

7.Integration testing

8.System testing

9.Acceptance testing

It's visually represented as a "V" shape, with development phases (verification) on the left side and corresponding testing phases (validation) on the right. This model promotes early defect detection, improves software quality, and reduces costs by systematically testing each stage of development in parallel with its corresponding development phase.