AGILE PROJECT MANAGEMENT

What is a Project?

- According to PMBOK, `a project is a temporary endeavor undertaken to create a unique product, service, or result.`

- Projects not only IT project, but also other business area, such as, civil engineering, consulting, oil and gas, etc.
  - Temporary means: have a start and end date
  - Unique means: project create a unique environment and product

Introduction to Project Management

- Agile project management is a style of project management that focuses on early delivery of business value, continuous improvement of the project's product and processes, scope flexibility, team input, and delivering well-tested products that reflect customer needs.

- A project is a planned program of work that requires a definitive amount of time, effort, and planning to complete. Projects have goals and objectives and often must be completed in some fixed period of time and within a certain budget.

- Agile approaches are a response to the need to modernize project management. To understand how agile approaches are revolutionizing projects, it helps to know a little about the history and purpose of project management and the issues that projects face today.
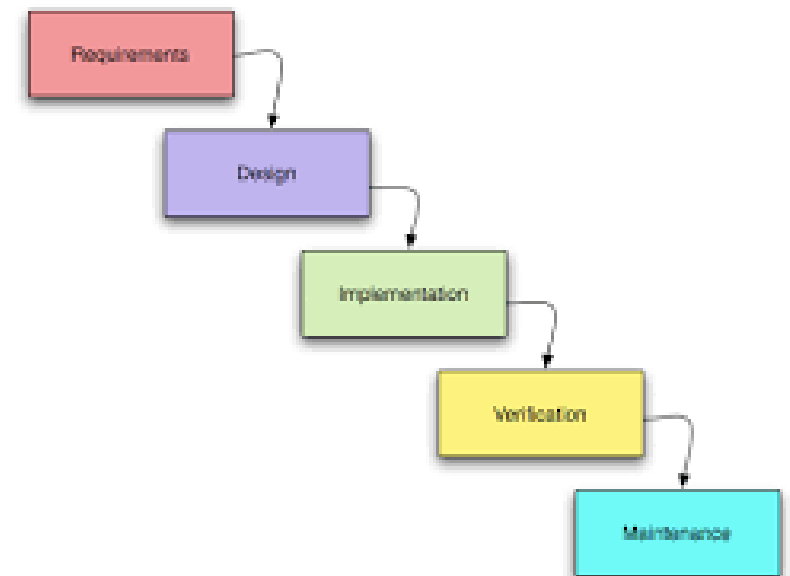
Introduction to Project Management

- Agile project management is a style of project management that focuses on early delivery of business value, continuous improvement of the project's product and processes, scope flexibility, team input, and delivering well-tested products that reflect customer needs.

- A project is a planned program of work that requires a definitive amount of time, effort, and planning to complete. Projects have goals and objectives and often must be completed in some fixed period of time and within a certain budget.

- Agile approaches are a response to the need to modernize project management. To understand how agile approaches are revolutionizing projects, it helps to know a little about the history and purpose of project management and the issues that projects face today.

History of Agile

- Projects have been around since ancient times. From the Great Wall of China to the Mayan pyramids at Tikal, from the invention of the printing press to the invention of the Internet, people have accomplished endeavors big and small in projects.

- Projects have been around since ancient times. From the Great Wall of China to the Mayan pyramids at Tikal, from the invention of the printing press to the invention of the Internet, people have accomplished endeavors big and small in projects.

History of Agile

People
Innovation
Excellence

- People in the computing field adopted these step-based manufacturing processes because early computer-related projects relied heavily on hardware, with computers that filled up entire rooms. Software, by contrast, was a smaller part of computer projects. In the 1940s and 1950s, computers might have thousands of physical vacuum tubes but fewer than 30 lines of programming code. The 1940s manufacturing process used on these initial computers is the foundation of the project management methodology known as waterfall.

History of Agile

- People in the computing field adopted these step-based manufacturing processes because early computer-related projects relied heavily on hardware, with computers that filled up entire rooms. Software, by contrast, was a smaller part of computer projects. In the 1940s and 1950s, computers might have thousands of physical vacuum tubes but fewer than 30 lines of programming code. The 1940s manufacturing process used on these initial computers is the foundation of the project management methodology known as waterfall.
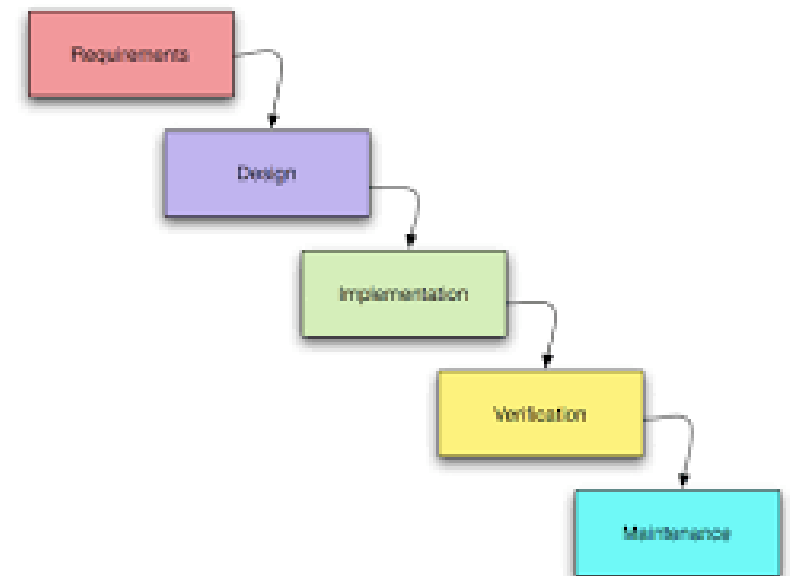
Waterfall Model

- The Waterfall Model was the first Process Model to be introduced. It is also referred to as a **linear-sequential life cycle model**. It is very simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases.

- The Waterfall model is the earliest SDLC approach that was used for software development.

- The waterfall Model illustrates the software development process in a linear sequential flow. This means that any phase in the development process begins only if the previous phase is complete. In this waterfall model, the phases do not overlap

Waterfall Design

- The sequential phases in Waterfall model are –

- **Requirement Gathering and analysis** – All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

- **System Design** – The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.

- **Implementation** – With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.

- **Integration and Testing** – All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.

- **Deployment of system** – Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.

- **Maintenance** – There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

REFERENCES

- <textbook/ other references>