CONTENTS

AGILE

Agile development is an umbrella for Iterative approach methods.

- Faster Delivery Time
- Iterative approach`

INCREMENTAL MODEL (AGILE EXAMPLE)

- Rather than deliver the system as a single delivery, the development and delivery is broken down into increments with each increment delivering part of the required functionality.
- User requirements are prioritized, and the highest priority requirements are included in early increments.
- Step by Step approach.
- Once the development of an increment is started, the requirements are frozen though requirements for later increments can continue to evolve

ITERATIVE MODEL (AGILE EXAMPLE)

- Work is done in cycle process.
- Once a rough model is created, then it is renewed and improved in the next cycle and so on until finished.
- Hence, in iterative model whole product is developed step by step.
- Each iteration is a mini project with its own lifecycle (this could be waterfall, for example). The product of each iteration is an executable system which is integrated and tested. An iteration usually lasts for a predefined, relatively short period of time (generally a few weeks).

ADVANTAGES

- Operational portion ready early in project.
- Rapid return on investment
- Allows for gradual introduction of new product to client.
- Early and regular feedback from clients.
- Early discovery of high risks
- Accommodates changes

DISADVANTAGES

- Each new build must be incorporated into the existing build without breaking it.
- Clients have more opportunity to attempt to change requirements than with, for example, the waterfall method.
- Has the potential to degenerate into a build and fix model.

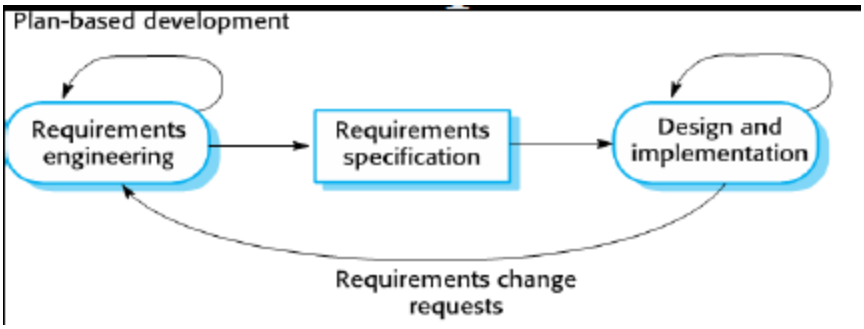
AGILE DEVELOPMENT CHARACTERISTICS

- Minimal documentation → More focus on coding.
- Frequent delivery.
- Stakeholders are more involved in specification and evaluation.

PLAN DRIVEN AND AGILE DEVELOPMENT

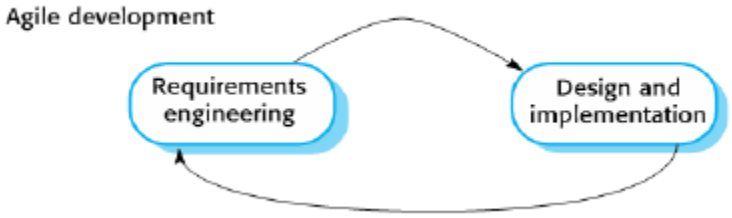
PLAN-DRIVEN

- Plan-driven processes are those processes where all the process activities are planned, and progress is measured against this plan.
- Iteration occurs within activities.



AGILE-DEVELOPMENT

- Planning is incremental and it is easier to change the plan and the software to reflect changing customer requirements.
- The output from the development process are decided through a process of negotiation during the software development process.



AGILE METHODS

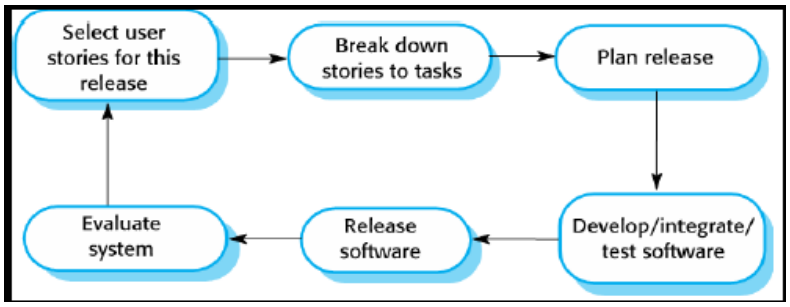
- Focus on the code rather than the design.
- Are based on an iterative approach to software development.
- Are intended to deliver working software quickly and evolve this quickly to meet changing requirements.
- The aim of agile methods is to reduce problems faced during development (e.g. a lot of documentation) and to be able to respond quickly to changes.

PRINCIPLE OF AGILE METHODS

- Customer involvement.
- Incremental delivery.
- People not process.
- Embrace change.
- Maintain simplicity.

AGILE DEVELOPMENT TECHNIQUES

EXTREME PROGRAMMING:



- It is customer-centric methodology.
- It focuses on constantly changing requirements and customer feedback.
- Customer is center point of development.
- Iterative.
- Pair-Programming (Developers work in pairs, checking and supporting each other's work.)
- Requirements of customer are 100% fulfilled.
- Maintain Simplicity though constant refactoring of code.