

SWEN90016

Software Processes & Project Management

SDLC Process

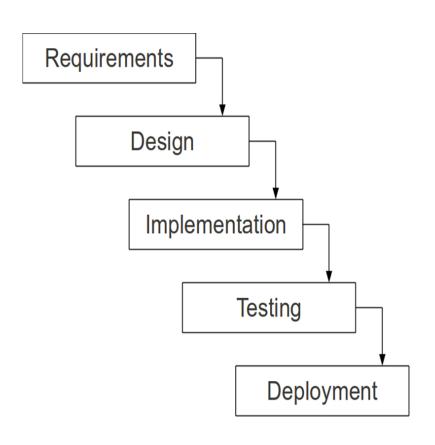
Medic Case study

2021 – Semester 1 Tutorial 3



Waterfall

What are the Advantages?



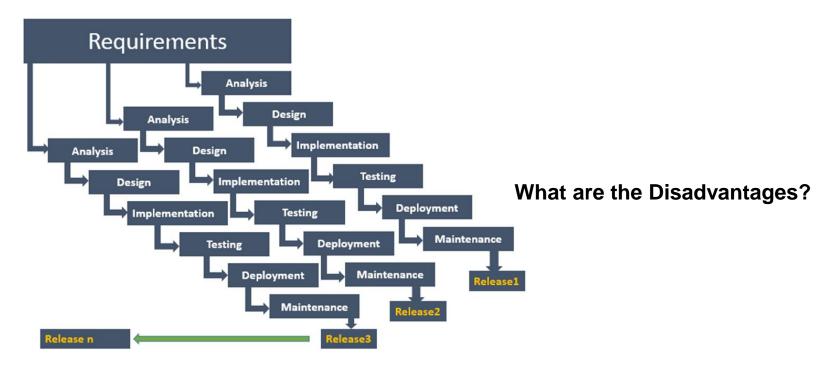
What are the Disadvantages?



Incremental

Requirement - partition into segments
Releases - mini waterfall process
Integrate modules

What are the Advantages?

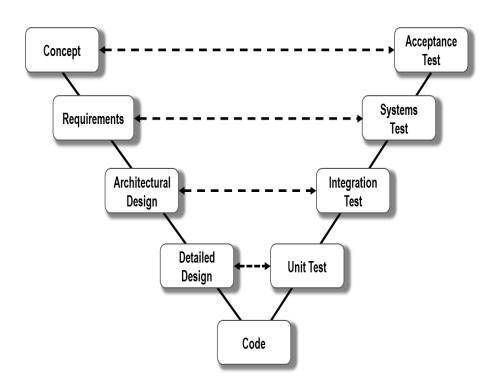




V-Model

waterfall model plus defined artifact deliverable development stage

testing phase



What are the Advantages?

- Simple and easy management
- Rigid and sequential deliverable
- Documentation produced
- Requirements stable and precise

What are the Disadvantages?

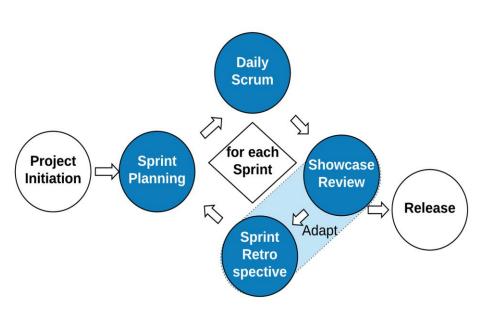
- Requires discipline
- Bad news known late in process
- Client feedback known late in process
- Discourages change
- Test artifacts are expensive
- Risks and changes have big impact



Agile

Scrum: method to organize working teams

XP: method to improve code quality



What are the Advantages?

What are the Disadvantages?



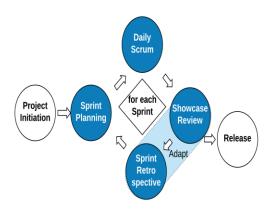
Case Study Analysis

Case Study 1

In groups of 4- Determine the goals & key characteristics

Goal

Key Characteristics





Today's aim

Understand the differences between the SDLC and when to use which one

Waterfall

V-model

Incremental

Agile



Project Analysis

Get into 2 groups, discuss SDLC processes & activities

- 1) Consider the project, people & technology
 - 1) Evaluate the team and project constraints.
- Evaluate multiple SDLC models
 - 1) Identify the advantages and disadvantages
 - Consider the outcomes and risks
- Justify an effective SDLC process
 - Defend your choice of SDLC
 - List the activities done

Formal: Requirements Specification

Agile: Product Backlog



Compare SDLCs

When to choose Formal Models?

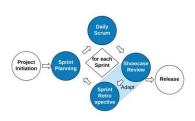








When to choose Agile Models?



When to choose a hybrid model?



Thank You!