

OVERVIEW OF SDLC (SOFTWARE DEVELOPMENT LIFE CYCLE)

WHAT TO EXPECT



- 1 What is a lifecycle
- 2 Few Examples of LifeCycle
- 3 Lifecycle of a Software
- 4 Common Types of Software Lifecycle Models
- 5 Waterfall, V Model, Spiral, Agile Explained
- 6 Trends & Latest

Lifecycle

noun

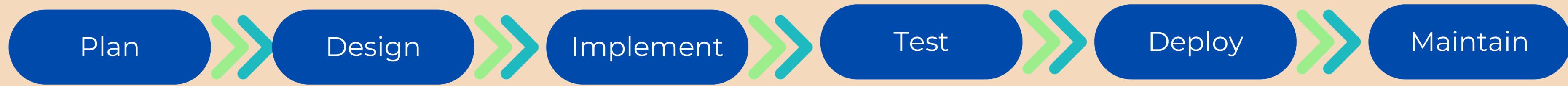
definition : the series of changes which go through from the beginning to end



← foetus, infancy, toddler years, childhood, puberty, adolescence, adulthood, middle age and senior years →

Even software has its own lifecycle

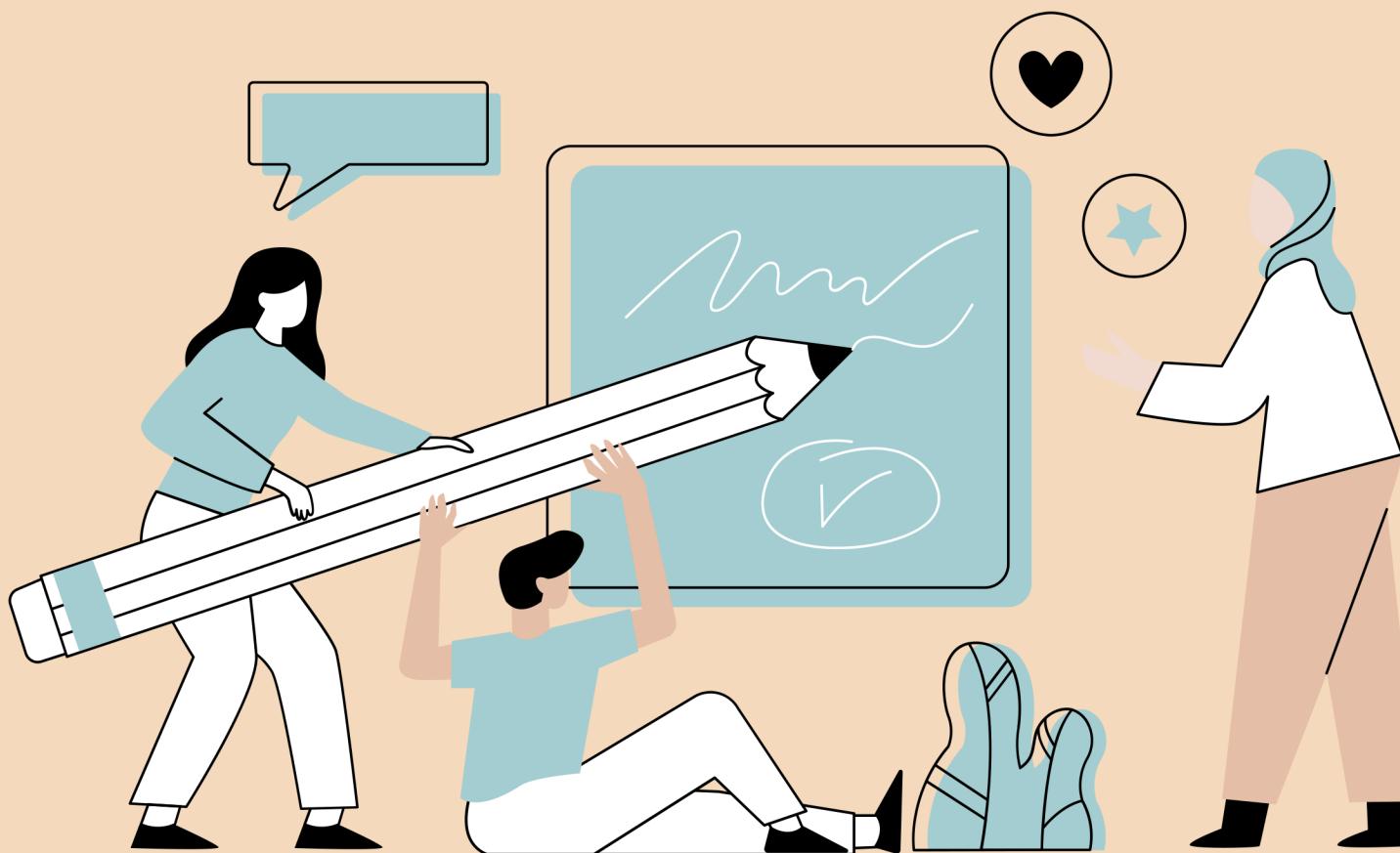
The software development lifecycle is a series of events usually in sequence giving organizations & individuals a systematic, step-by-step approach to develop a successful software.



Software Development Lifecycle (SDLC)



Stage1 - Plan

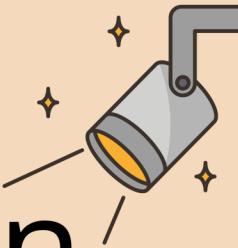


Usually the first stage of the SDLC

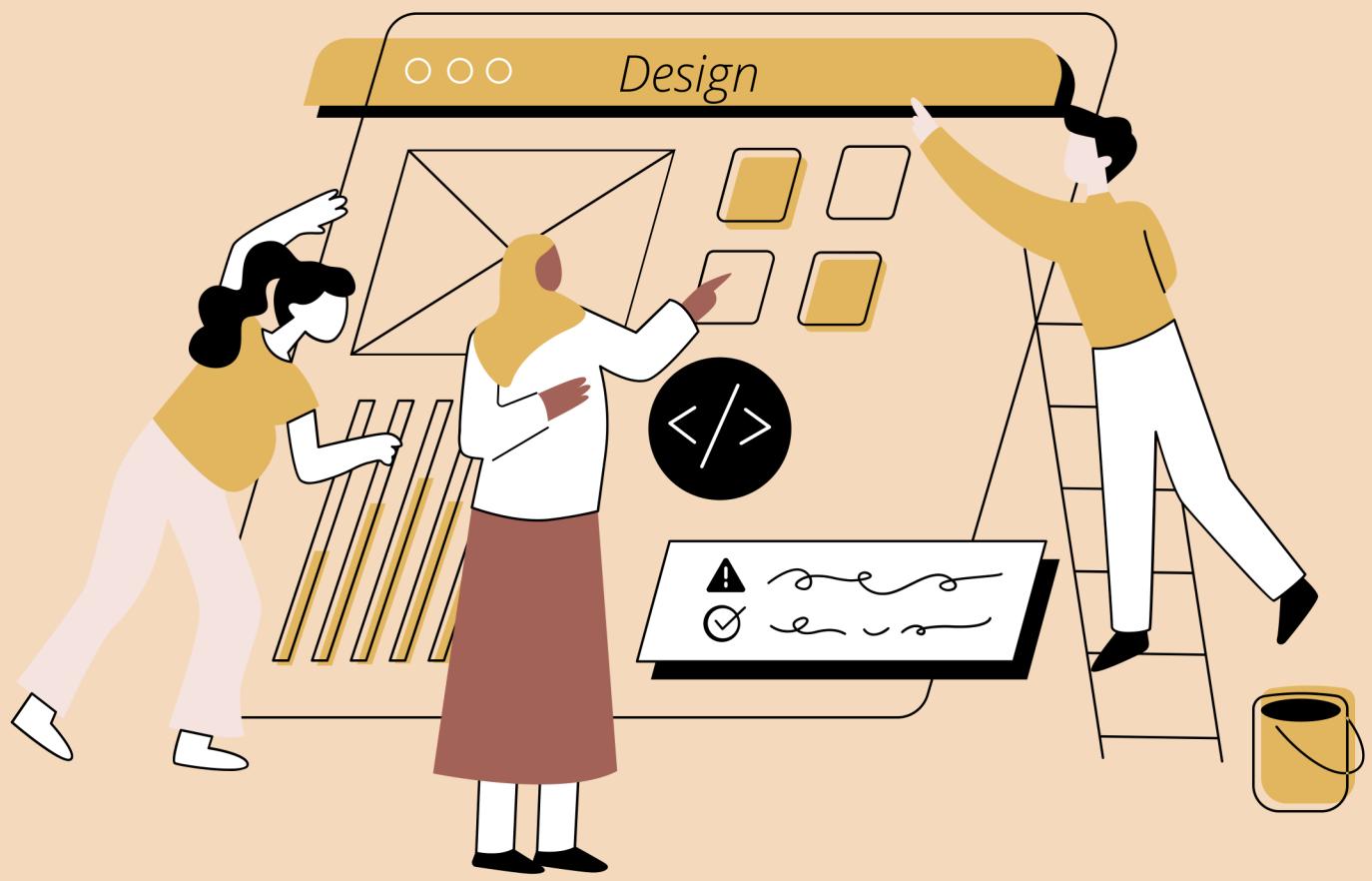
Teams will gather all the relevant information from stakeholders

Determine what is feasible or not also discuss the risks & opportunities

Compile the requirements



Stage2 - Design



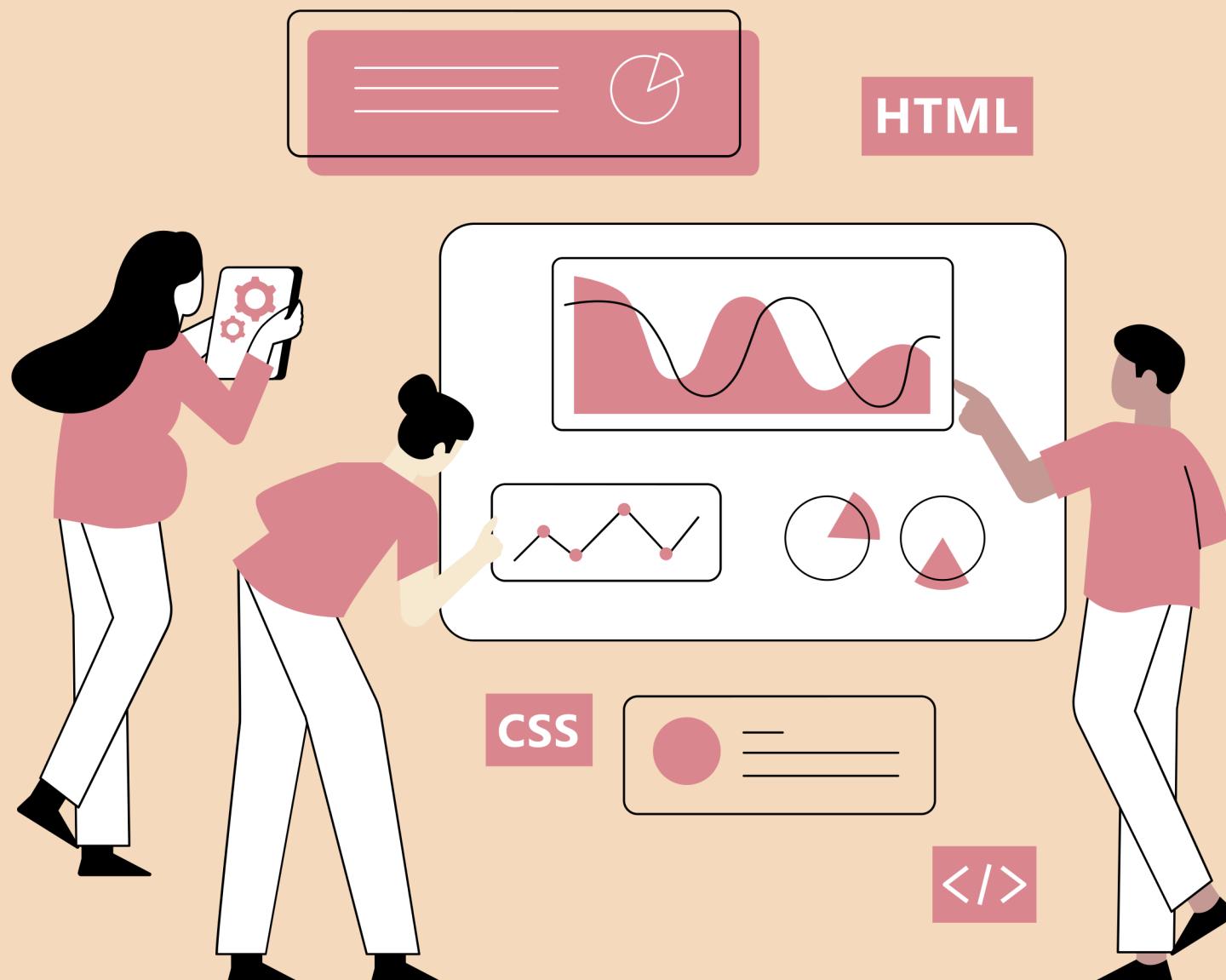
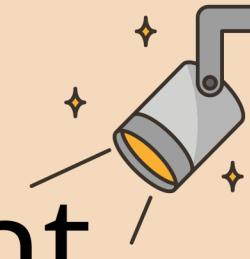
Answer the Question - How will we build this?

Build a product Roadmap

Obtain Stakeholder Signoff & Agreement

Clear Goals to accomplish for Developers

Stage3 - Implement



Also known as Coding / Development / Dev

Dev teams write the required code in the agreed technology

Follow the roadmap

Build a Minimum Viable Product to start & then complete the assigned requirement

Stage4 - Test



QA Teams try to break the software 😊

Teams test for features, functionality, performance, security & more

Defects are logged for developers to fix the code

Usually done in a Test Environment

Stage5 - Deploy



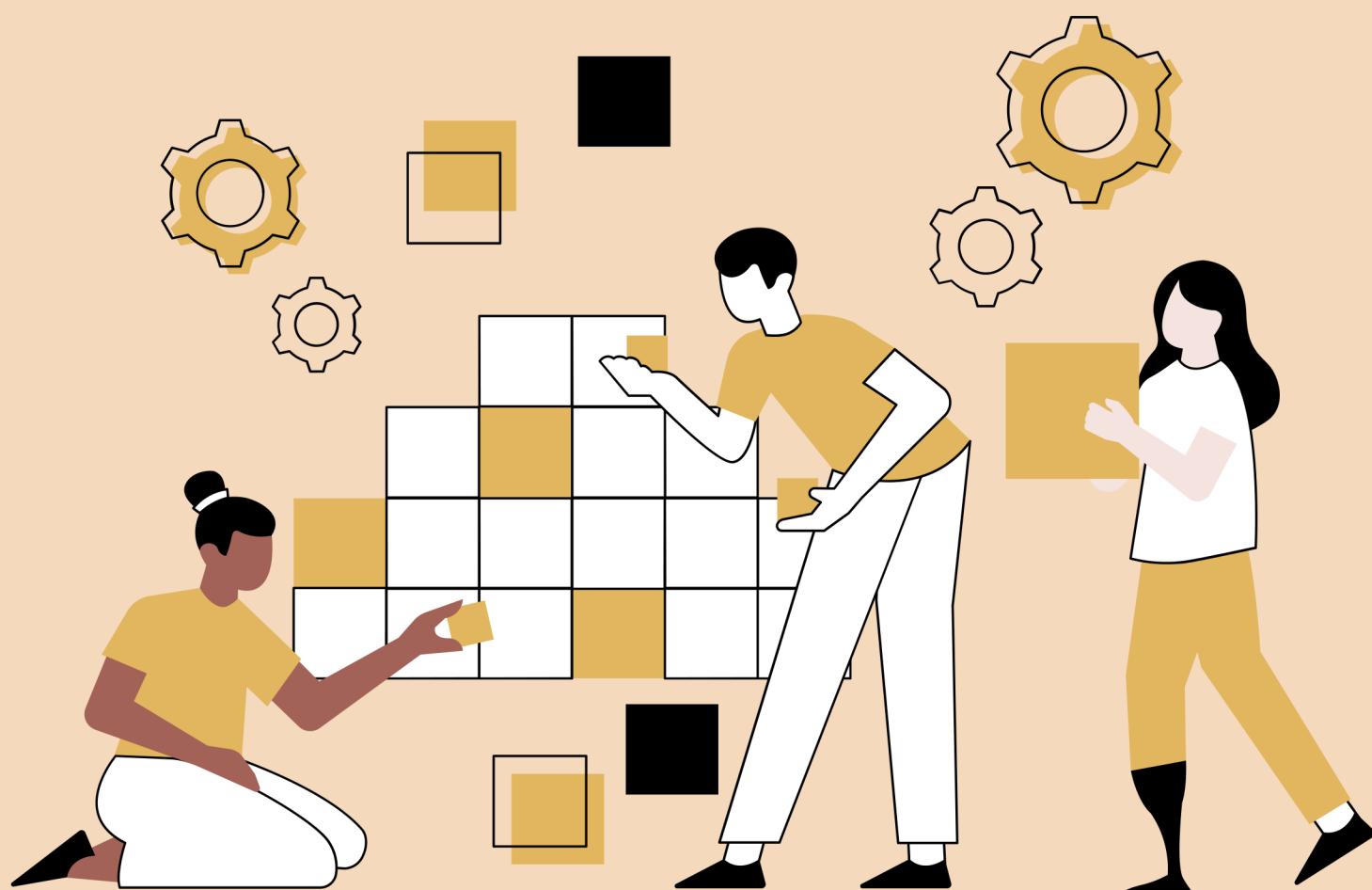
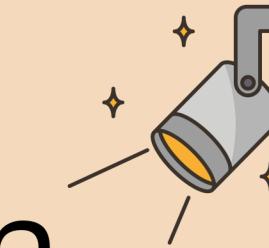
Verify all the defects are fixed & goals are met

Prepare a checklist to release the software to production

Ensure customers are able to access the software for their use

Celebrate !

Stage6 - Maintain



New goals & enhancements are tracked

Prepare a checklist to release the software to production

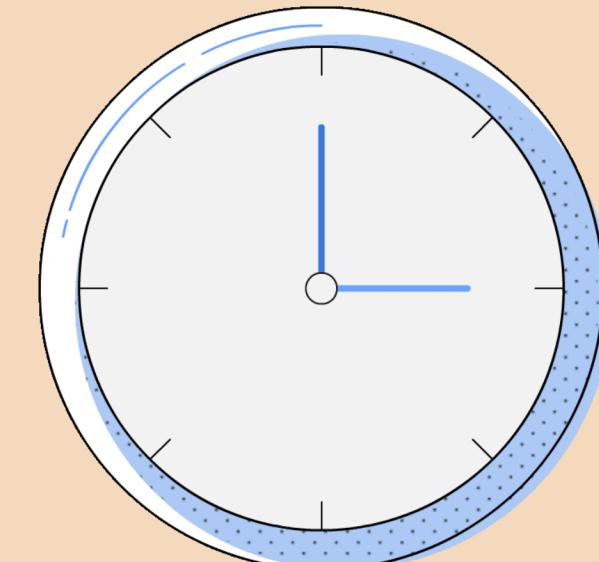
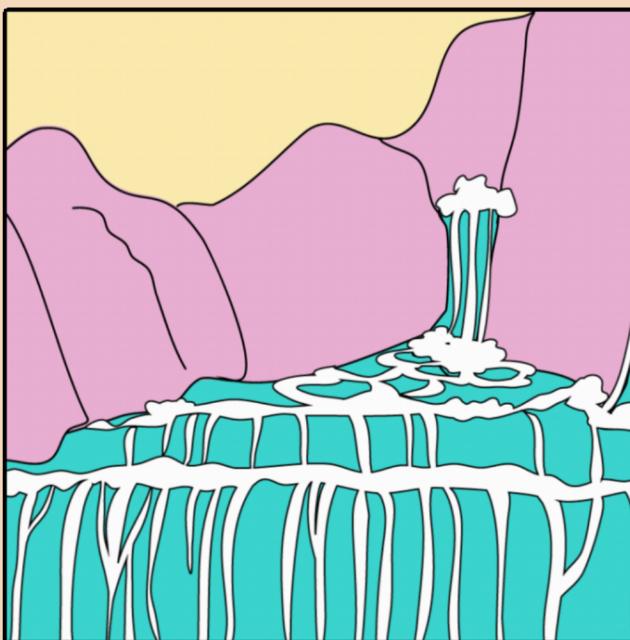
Loops back into the beginning of SDLC process

Keep Iterating

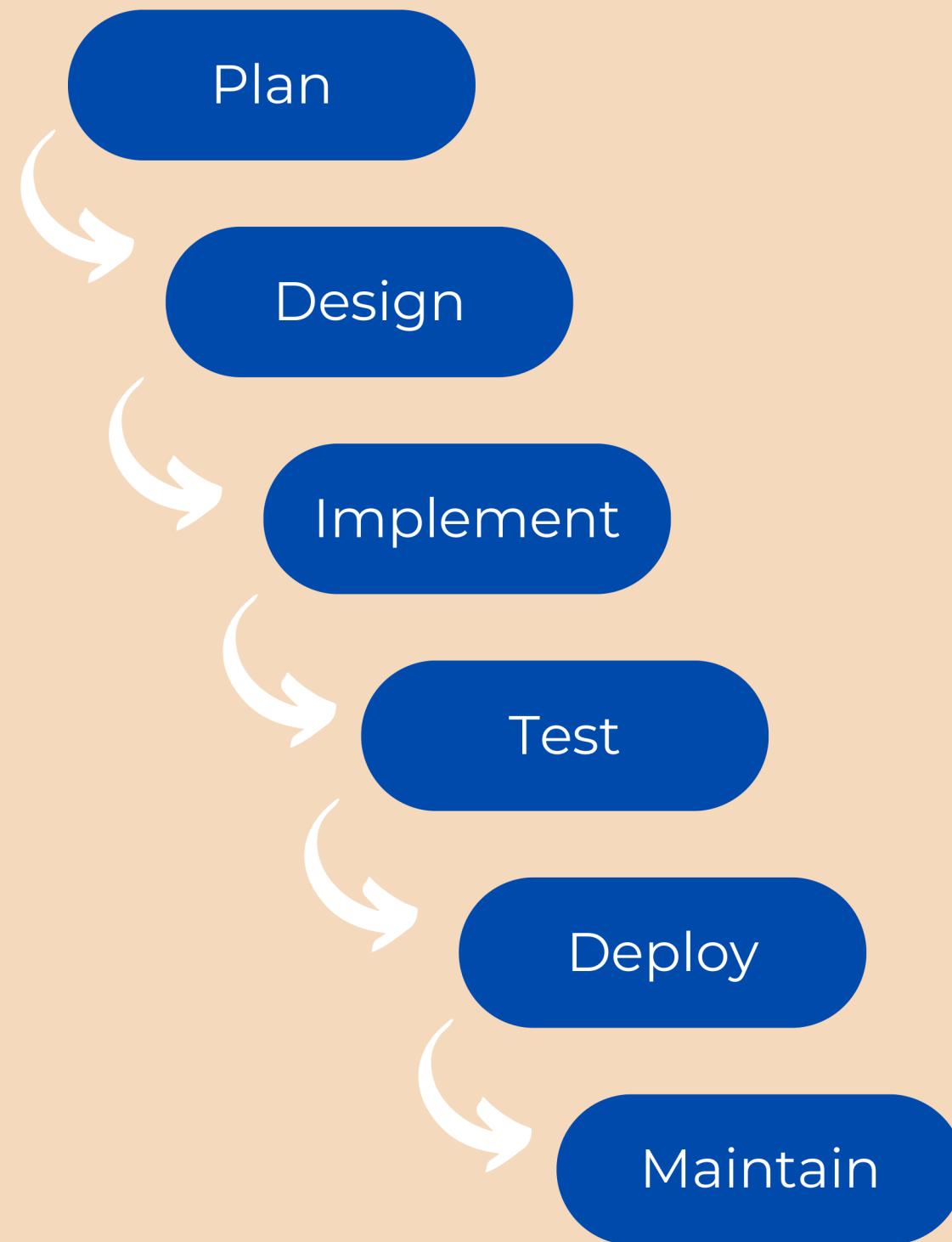
The Software Development Life Cycle (SDLC) presents a structure from the beginning to the end of your software design in a sequence of steps

A number of different SDLC models are used today by professionals & organization through their project-based work.

Models



Waterfall Model



Oldest & most straightforward.

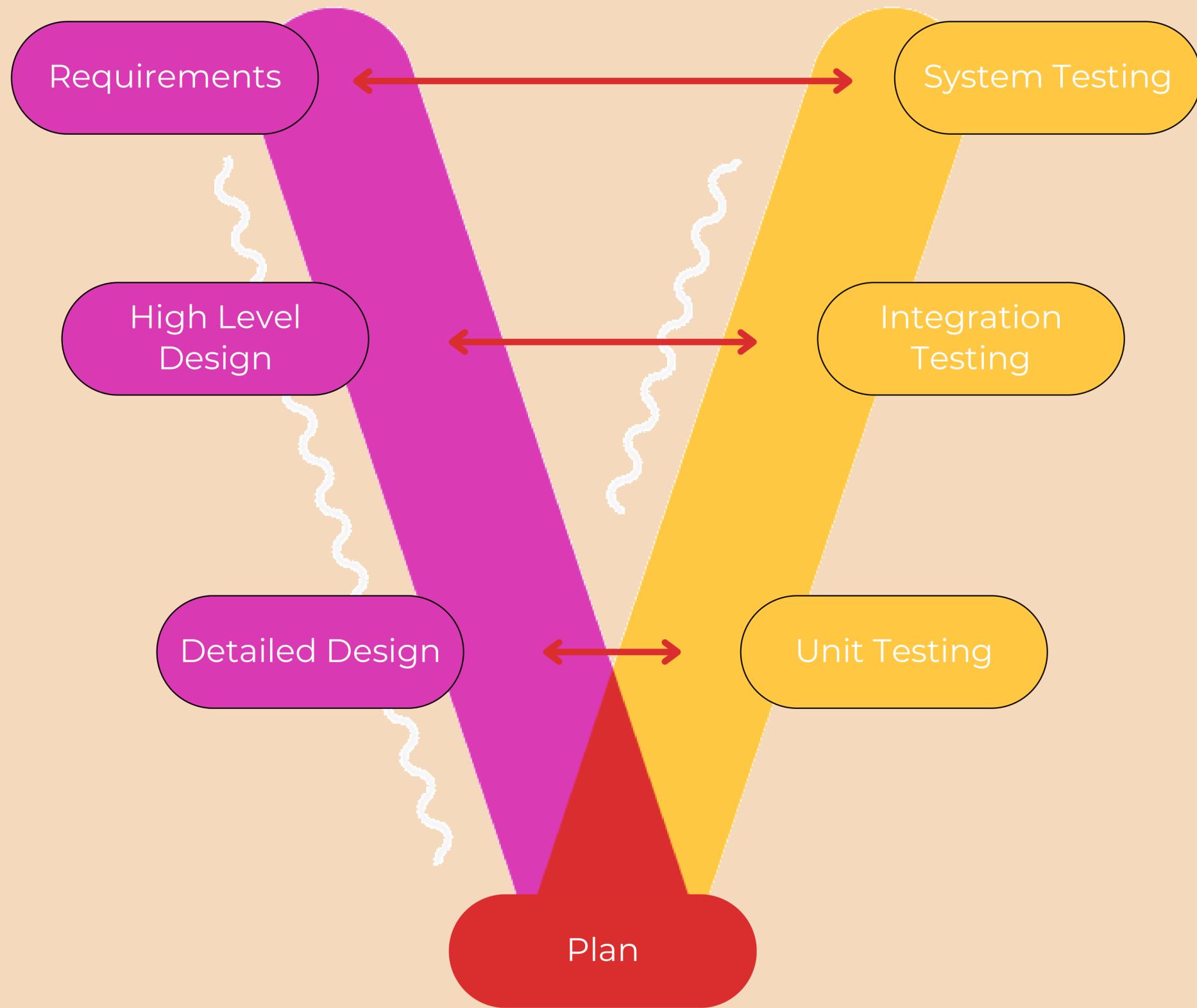
Finish one phase & then move to the next one

The cost of fixing any problems from previous stage is extremely high & sometimes unlimited

Delay in any phase can prolong the entire cycle

The Model doesn't work if flexibility is needed & project is for longer durations.

V Model



Involves parallel phases for development and testing

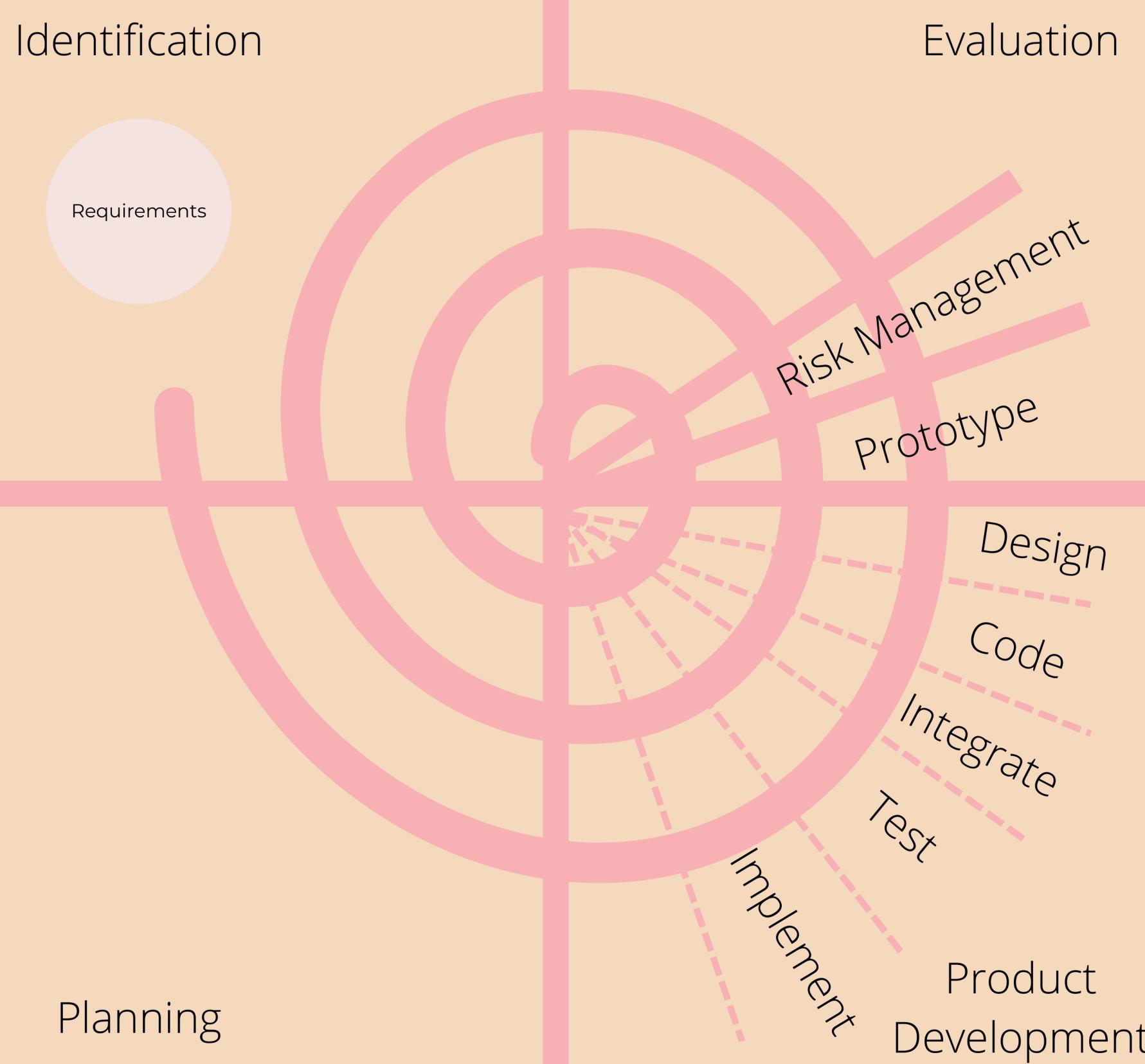
The model emphasizes verification (checking that the product is being built right) and validation (checking that the right product is being built) at each stage of development.

Provides a structured and predictable framework, making it easier to control the project.

At each stage of development, defects and issues can be detected and addressed early in the lifecycle.

Each phase generates specific documentation, providing a clear record of the project's progress, requirements, design decisions, and testing outcomes.

Spiral



Iterative model based on support for Risks

Each loop is called a phase. The exact number of loops can vary between projects

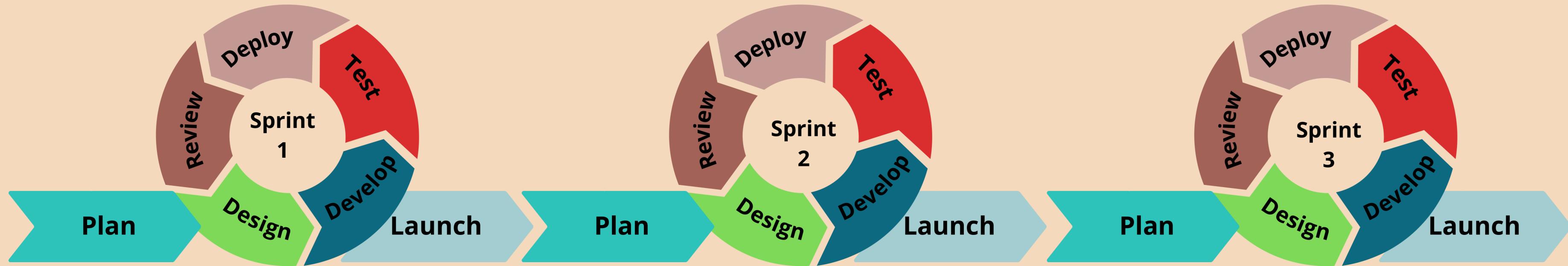
Evaluation includes identifying risks & technical feasibility

Usually used when Risk Evaluation is a key

Significant changes can be expected between the first prototype to final product

Agile

HOT!



Iterative & Time Boxed Model

Focus on responding to change & changing requirements

Measure progress on completion of the product

Be more in control of the project schedule and state

Agile (Continued)



5 Important Types Of Agile Methodology (2022)



Scrum

Scrum is a framework of rules, roles, events, and artifacts used to implement Agile projects. It is an iterative approach, consisting of sprints that typically only last one to four weeks. This approach ensures that your team delivers a version of the product regularly.



Kanban

Kanban is a method for defining, managing, and improving services that deliver projects. It helps you visualize work, maximize efficiency, and improve continuously. Work is represented on Kanban boards, allowing you to optimize work delivery across multiple teams and handle even the most complex projects in a single environment.



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See you in Next Video

