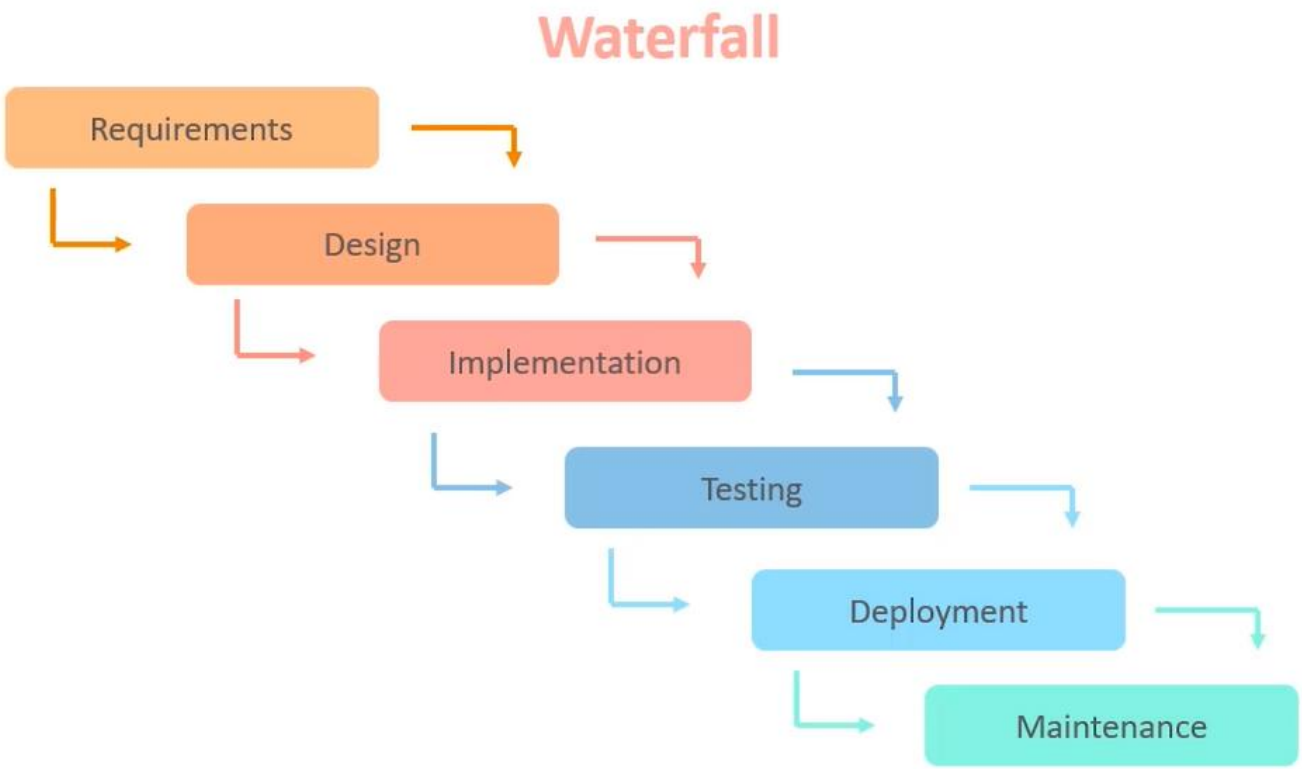
GIS RNRICH PROGFRAM (MODULE 2)

Agile Methodology

What Issues does Agile help us Resolve?

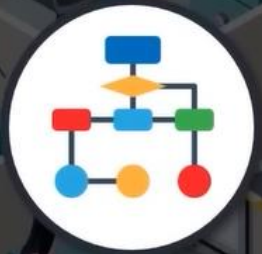


The Waterfall Model - Disadvantages

These are some of the reasons why the move to an alternative to the waterfall model was necessary:

Makes changes difficult

It doesn't focus on the end-user/ client

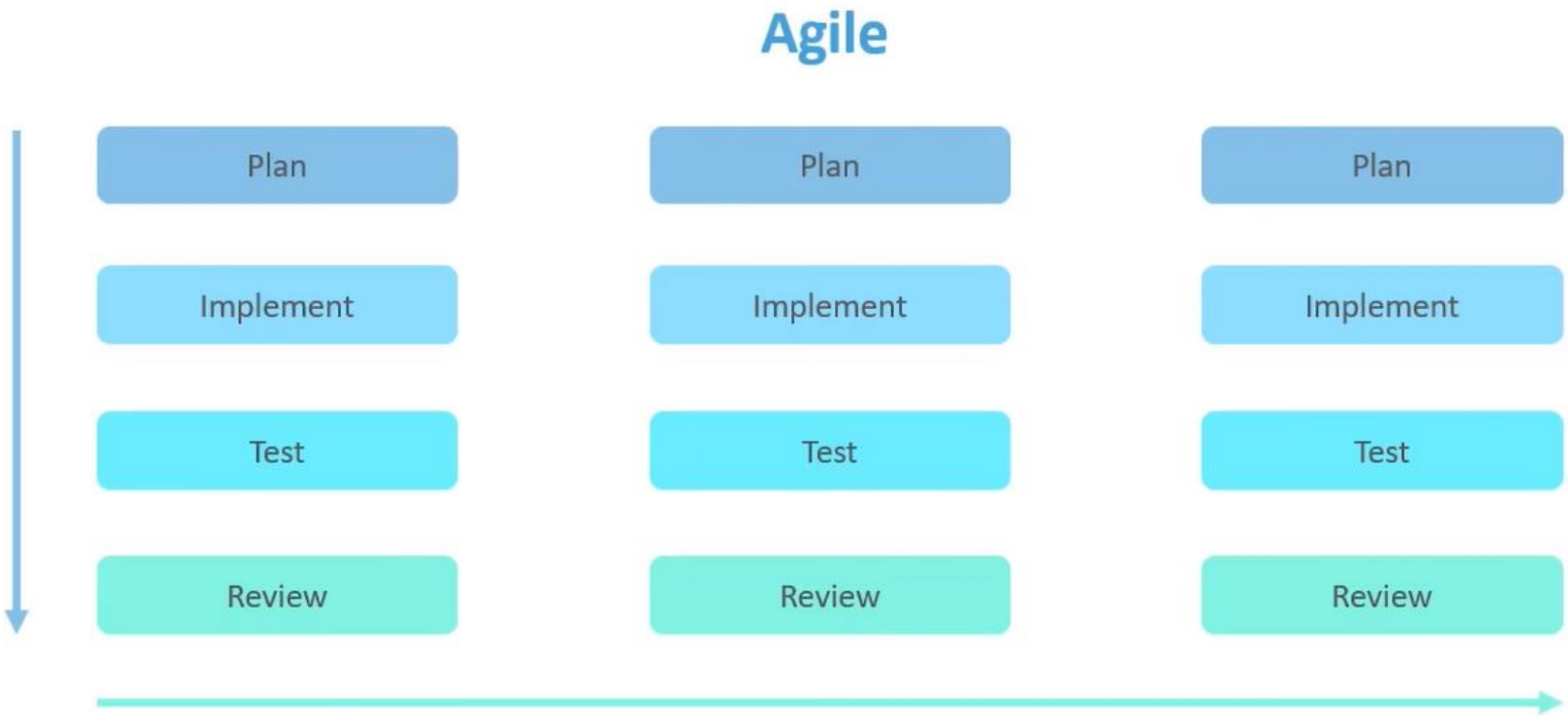


The testing phase is delayed until most of the project is completed

Measuring the progress within stages is difficult

Then, in 2001 Agile was introduced!
2001
AGILE

What Issues does Agile help us Resolve?



Agile Manifesto

Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Left

Right

That is, while there is value in the items on the right, we value the items on the left more.

Agile Manifesto

1

Individuals and interactions

Processes and Tools.

Agile Manifesto

2

Working Software

Comprehensive Documentation

Agile Manifesto

3

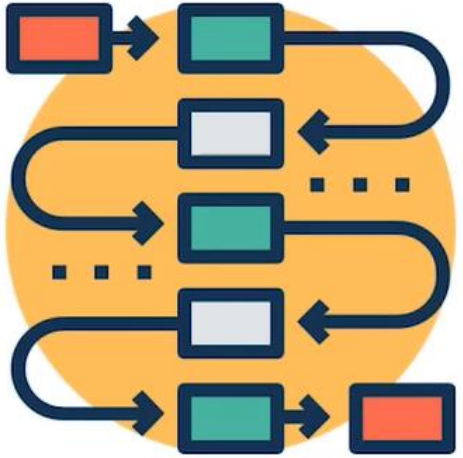
Customer Collaboration

Contract Negotiation

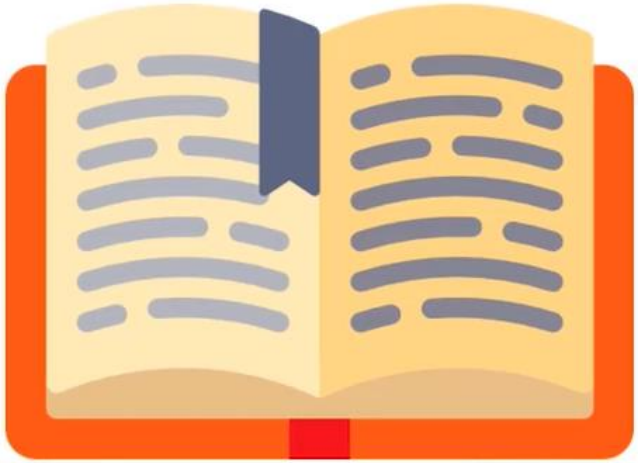
Agile Manifesto

4

Responding to a change



Following a plan



Agile
Principles

What are the benefits of Agile ?

Benefits of Agile

Transparency

Benefits of Agile

Transparency

Predictable Costs and Schedule

Benefits of Agile

Transparency

Predictable Costs and Schedule

Allows for Change

Benefits of Agile

Transparency

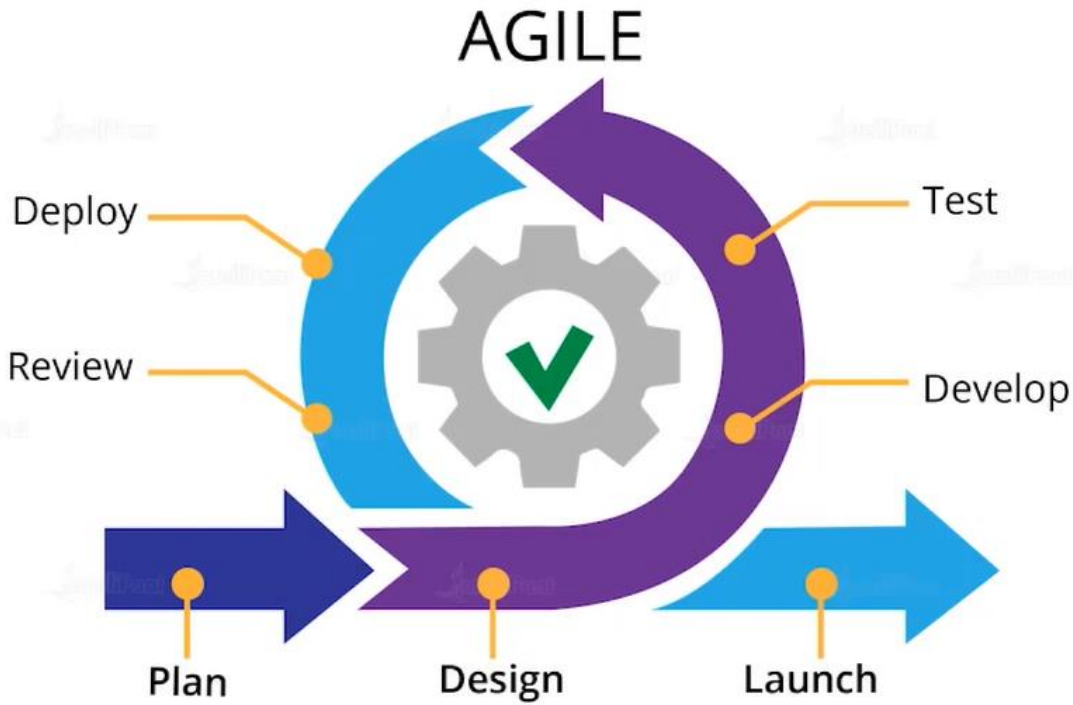
Predictable Costs and Schedule

Allows for Change

Improves Quality

How to implement Agile?

How to implement Agile?



Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

1 Customer Satisfaction

You need to satisfy the customer through early and quick delivery of the product

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

2 Welcome Change

Changing needs need to be addressed, even late in the development process

Agile Principles

The Agile Manifesto

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2 Welcome Change

Changing needs need to be addressed, even late in the development process

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

3 Deliver Frequently

Ensure software is delivered frequently, focusing on a shorter timescale

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

4 Work Together

Developers and business individuals need to work together through the course of the project

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

5 Motivated Team

Projects need to be built around motivated individuals and they must be trusted to get the job done

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

6 Face-to-face

Face-to-face conversation is the most efficient means of communication

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

7 Working Software

Working software is the primary measure of progress

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

8 Constant Pace

The agile process promotes sustainable development

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

9 Good Design

Agility can be improved by focusing on technical excellence and good design

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

10 **Simplicity**

The amount of work that's not being done needs to be minimized

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

11 **Self-organization**

Self-organized teams provide the best architectures, requirements, and designs

Agile Principles

The Agile Manifesto

Here are some of the principles that need to be followed to a make a process agile:

12 **Reflect and Adjust**

Effectiveness can be improved by the team regularly reflecting on it

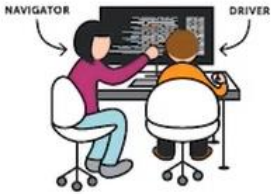
Agile Practices

Practices of Agile

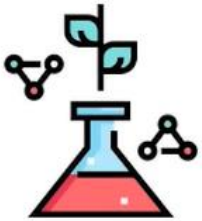
Daily standup

Sprints

Splitting user stories



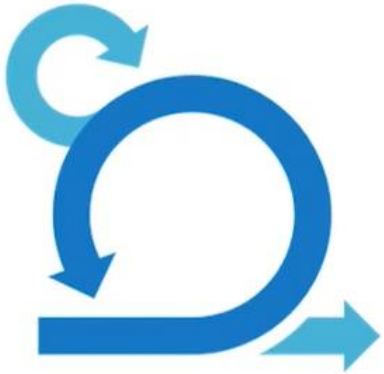
Pair programming



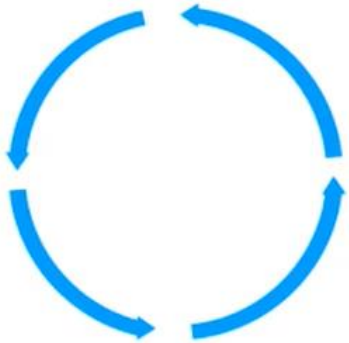
Test-driven development

Agile Frameworks

Agile Frameworks :



Scrum



Lean

Kanban