



# INF 151: Project Management

Week 2: Thursday 3: Tuesday

# Today's Agenda

Quiz 1 (finally)

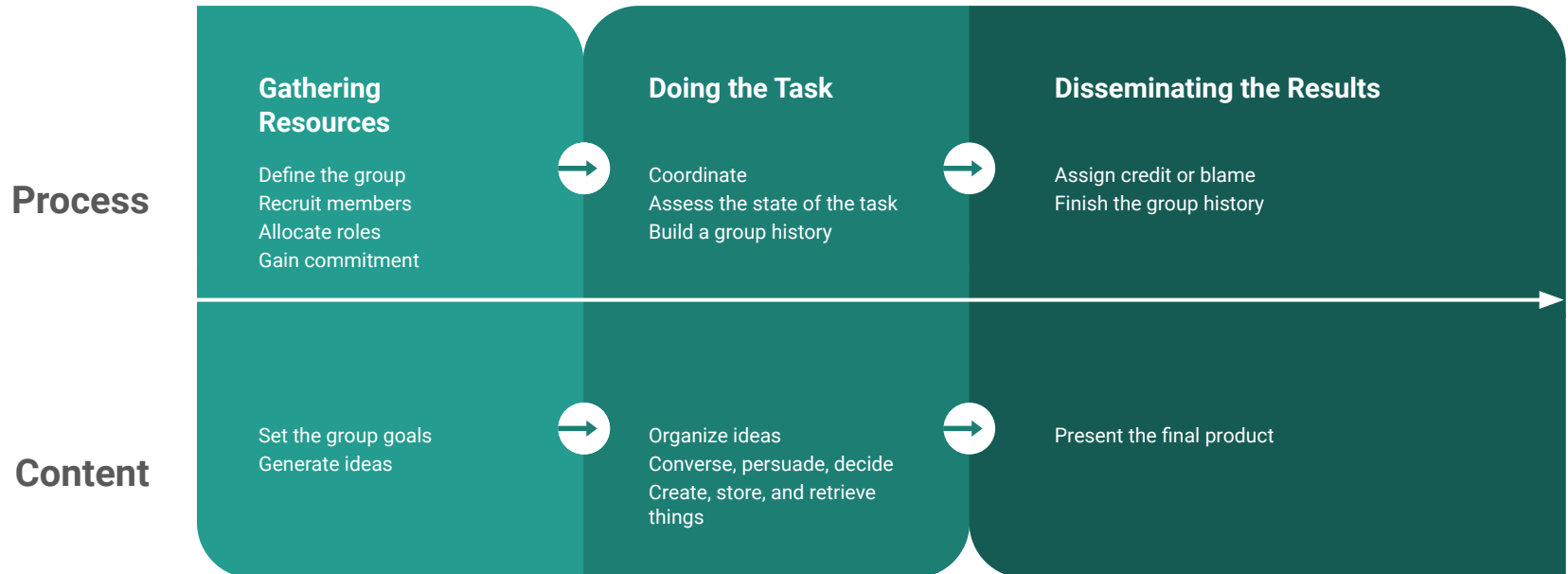
Project development life cycle models

Project Check-in

Applying the Agile model



# The Group Over Time



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# Managing the Project



# Project Development Life Cycle Models

All products go through a life cycle

A process or guide for managing the phases of a project

Typically:

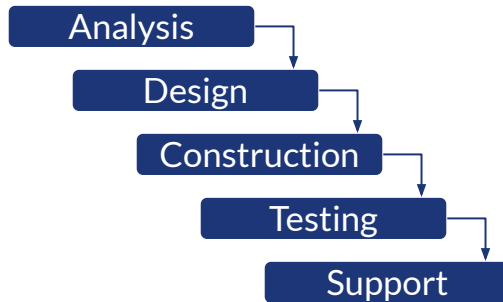
- Starting the project
- Organizing and preparing
- Carrying out the work
- Finishing the project

Models gives us a clear, consistent, and reusable approach to product development



# Project Development Life Cycle Models

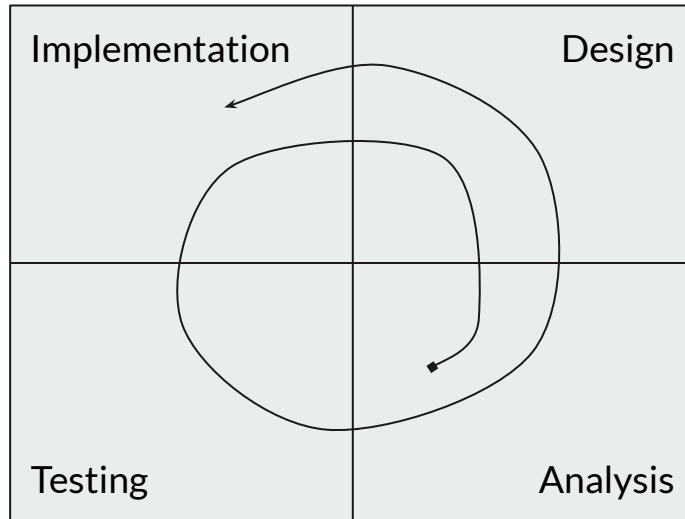
Waterfall  
Model



- Rigid and linear process
- Depends on stable, largely immutable requirements
- Pros/Cons ?
- Example use?

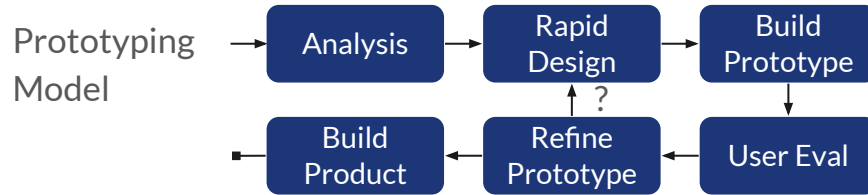
# Project Development Life Cycle Models

Spiral Model



- Adds iteration to waterfall
- Refine and re-implement as needed
- Pros/Cons ?
- Example use?

# Project Development Life Cycle Models



- Dependent upon end user feedback
- Prototypes are mutable
- Pros/Cons ?
- Example use?



**These models worked, but no longer paired well with the needs of modern technological system development**

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# Project Development Life Cycle Models

Agile/Scrum

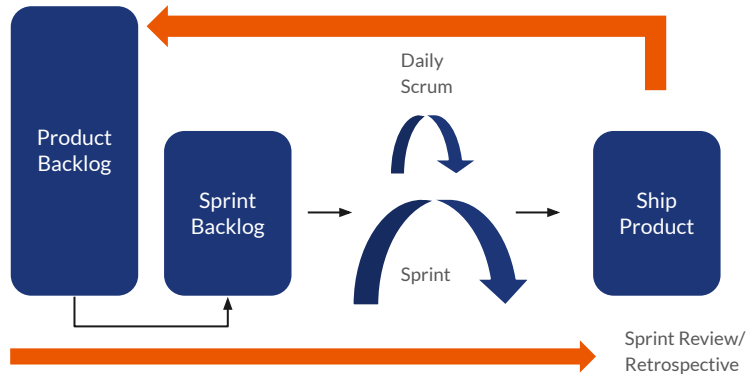
Industry leaders and researchers joined to develop a better model

~ 2000 the Agile Alliance was formed on the following principles:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

# Project Development Life Cycle Models

Scrum  
Model



- Sprints typically last 2-4 weeks
- Teams evaluate and iterate daily
- Product shipped in stages
- Pros/Cons ?
- Example use?



# Project Development Life Cycle Models

Many more methods and models!

Every industry makes use of slightly different versions of the basic processes captured by these models

- Requirements Analysis
- Design
- Development
- Test
- Support



# Project Development Life Cycle Models

Agile Alliance

The Agile Model has become the standard in software development industry

Popular for companies with web-based product portfolios

Proven to work

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# Managing the Process



# Project Check-in

Reminder:

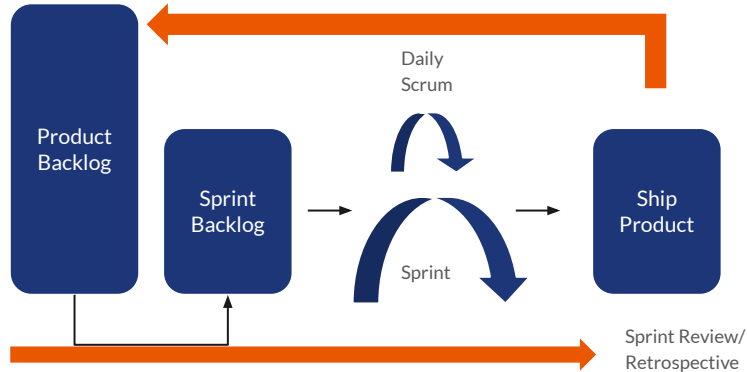
This class is about project management  
NOT project development!

Resist diving into the work until the process  
is complete!

- ✓ Defined your project
- ✓ Identified a project manager?
- ✓ Kickoff meeting
- ✓ Develop a business case
- ☐ Project planning
  - ☐ Scope Statement (10/27)
  - ☐ Work Breakdown Structure (10/27)
  - ☐ Project Schedule (11/1)

# Agile and Scrum

## Structure



- Epic
  - Consists of 1-many sprints required to reach goal
- Sprint
  - 2-4 week period
  - Consists of planning, executing, testing, and review phases
  - Items from product backlog added as 'cards' to a 'sprint board'
  - Cards are moved as progress is made





# Agile and Scrum

## User Stories

Short descriptions developed with stakeholders (user, customer, etc)

Typically 2-3 sentence description of what a system should do:

“As a **ROLE**, I want **PRODUCT** to **DO SOMETHING** so that **OUTCOME IS ACHIEVED**”

Development team interprets each user story into the tasks required to fulfill the stated stakeholder need

# DEMO

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# Agile and Scrum

## Review and Retrospective

Team meets at end of sprint to reflect on outcomes

“What went well that we should continue doing?”

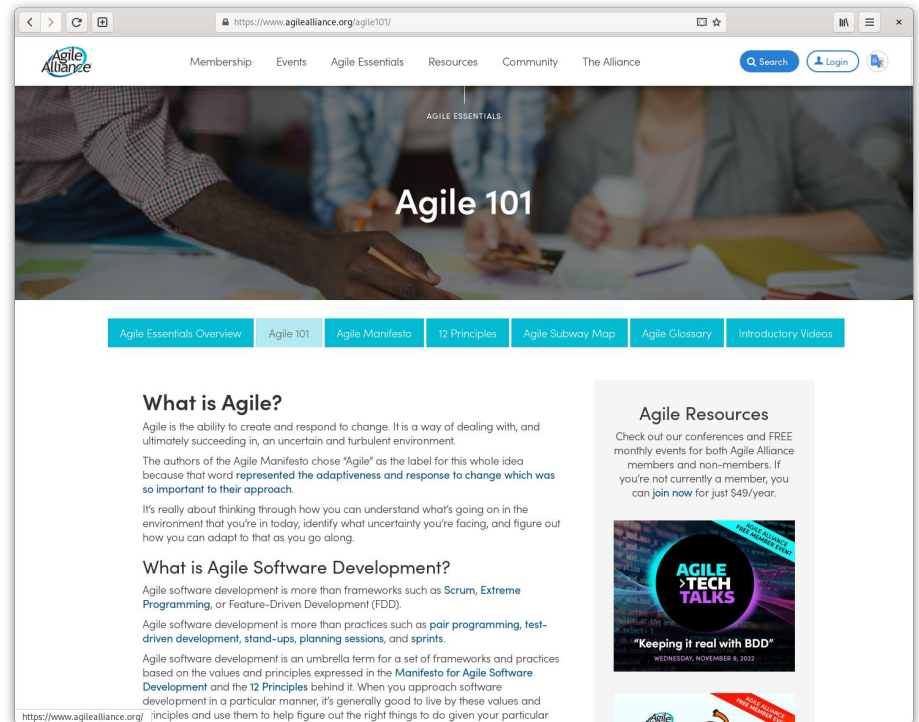
“What could we do differently to improve the process?”

If necessary, new requirements and/or processes may be added to next sprint

# Agile and Scrum

A brief overview!

Visit the Agile Alliance website for more.



The screenshot shows the Agile Alliance website's 'Agile 101' page. The browser address bar displays 'https://www.agilealliance.org/agile101/'. The navigation menu includes 'Membership', 'Events', 'Agile Essentials', 'Resources', 'Community', and 'The Alliance'. A search bar and a 'Login' button are also visible. The main content area features a large image of people working together, with the text 'Agile 101' overlaid. Below the image is a horizontal menu with options: 'Agile Essentials Overview', 'Agile 101', 'Agile Manifesto', '12 Principles', 'Agile Subway Map', 'Agile Glossary', and 'Introductory Videos'. The 'Agile 101' option is selected. The page content includes sections for 'What is Agile?' and 'What is Agile Software Development?'. The 'What is Agile?' section explains that Agile is the ability to create and respond to change in an uncertain environment, and that the Agile Manifesto chose 'Agile' as a label for this idea because it represented adaptiveness and response to change. The 'What is Agile Software Development?' section explains that it is more than frameworks like Scrum or FDD, and more than practices like pair programming or stand-ups. It also mentions the 12 Principles behind it. On the right side, there is a 'Agile Resources' section with a link to check out conferences and events, and a promotional image for 'AGILE > TECH TALKS' featuring 'Keeping it real with BDD' on Wednesday, November 9, 2022.

<https://www.agilealliance.org/>



# Next Class



# Thursday 10/13

- Assignment 4 DUE Thursday
- Second Quiz
- Start reading Chapter 4!

Project Integration Management



# References



- 1.
- 2.