

CITS5206

Working in Software Teams

Dr Caren Han
University of Western Australia



THE UNIVERSITY OF
WESTERN
AUSTRALIA

Guest Lecturer



Dr. Caren Han

Senior Lecturer

Education

- B Computer Science (1st Class Honours, Medal)
- PhD Computer Science (Artificial Intelligence)

Teaching

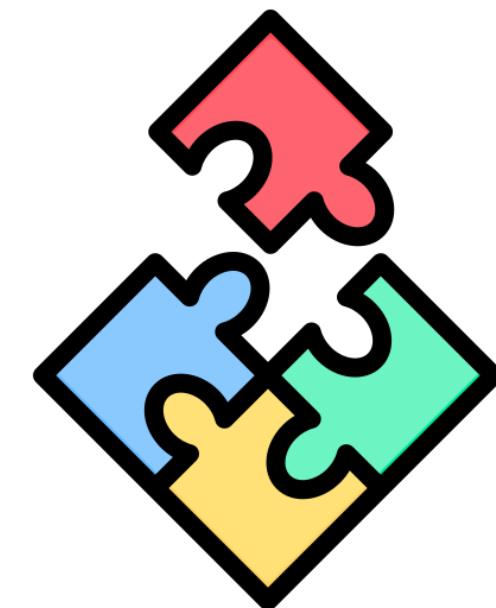
- Received **Australian Young Achiever Teaching Excellence Award**
- Received **Teacher of the Year 2020 Award**
- Received **Supervisor of the Year 2021 Award**
- Received **Dean's Teaching Excellence Award 2022**
- Teaching Natural Language Processing, Machine Learning, and Introduction to Programming

Research & Programming Experience

- Published 70 papers (conference and journal articles)
- Received **NLP Top-tier Best Paper/Best Area Paper Award**
- Worked in Industry Projects: **Google, Australia Defence Force, Thales, U.S. Air Force, U.S. Navy, NASA, Samsung, Hyundai etc.**

Work as a Team

A team is a small group of people with **complimentary skills** who are committed to a **common purpose** for which they hold themselves and each other accountable.



Complimentary skills

Technical skill, problem-solving, decision-making, and interpersonal skills



Commitment

Must make a strong commitment to a common purpose and goals

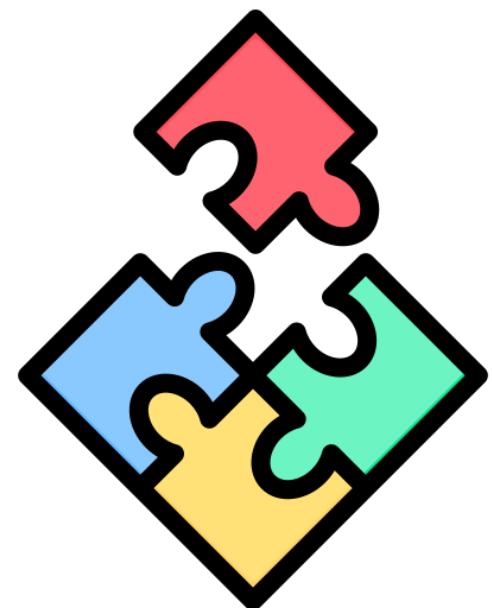


Accountability

must hold themselves and each other answerable for meeting the team's goals.

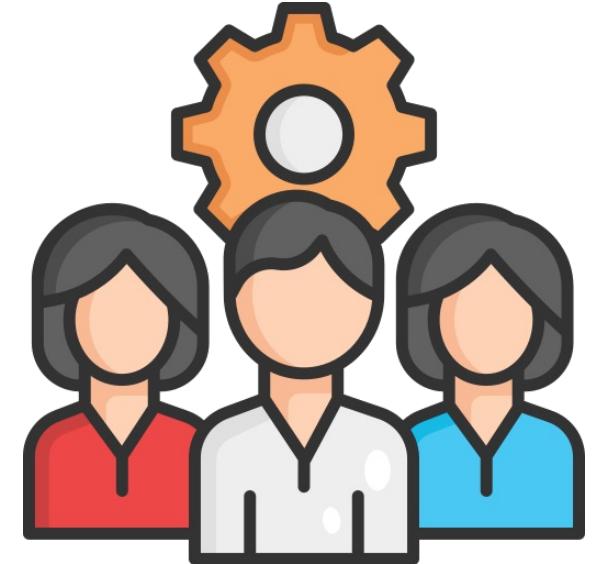
Why have Teams?

Most companies organise **their employees in multidisciplinary by function**, such as engineering, finance, and marketing.



Working Together

Team working together gets more results in less time



Organizational Parity

By considering ideas equally, teams can produce creative and optimum results.



Job Satisfaction

People on teams generally derive more satisfaction from their jobs.

Team Members and Leaders

Monitor the Performance of the Team

Monitor actual performance of the team in meeting its goals

Build commitment and confidence in the team members

Intimidation might work in some situations, but it will kill enthusiasm in a team.

Team leaders need to focus on positive reinforcement.

Do Real Work

Every team member must do roughly equal amounts of work and that includes the team leader.

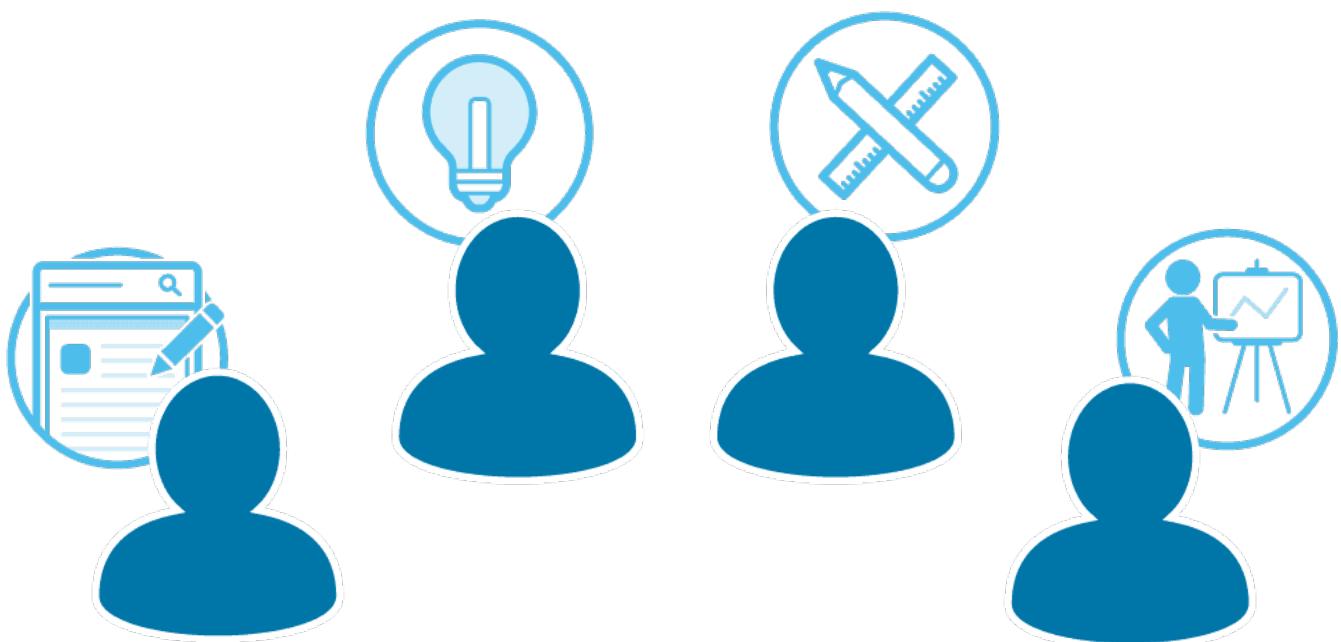
Often times the leader must set an example by volunteering to do jobs that no one else wants to do.

Team Development

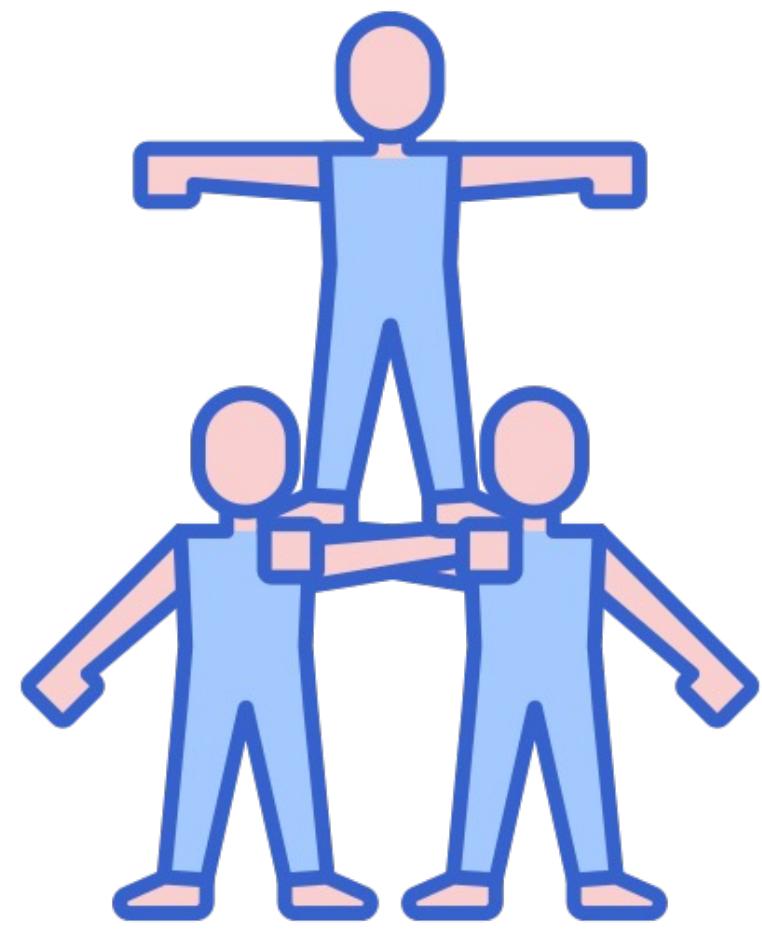
Teams often go through steps or phases during their development.



Forming



Storming & Norming



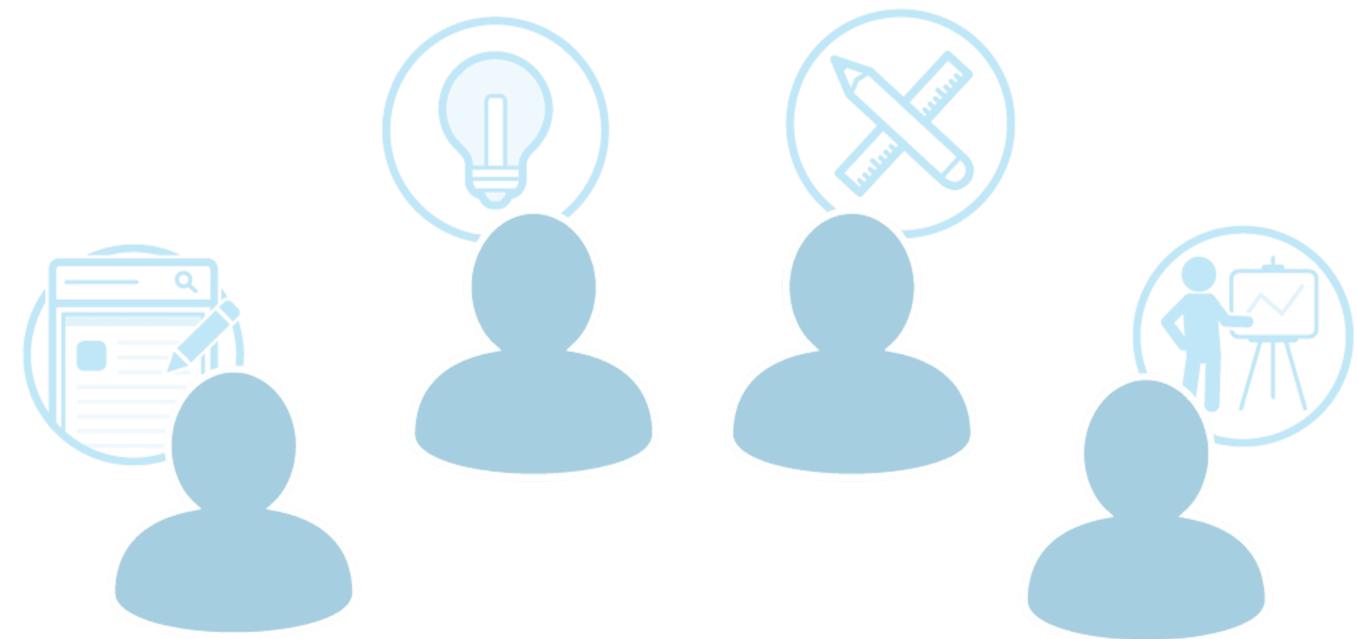
Performing

Team Development – Forming

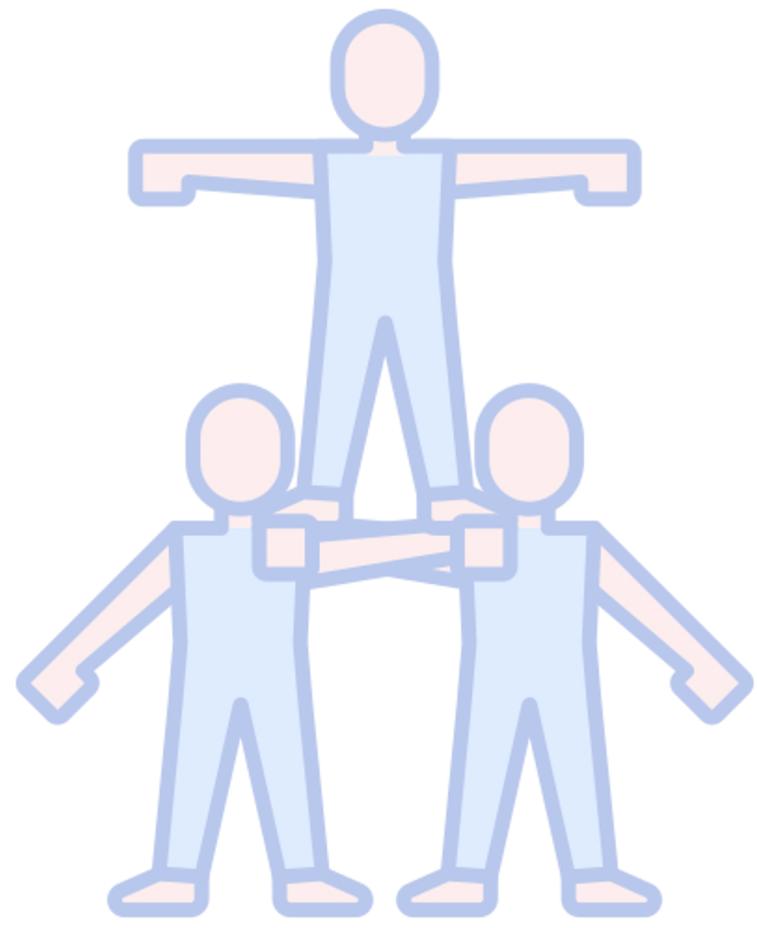
Teams often go through steps or phases during their development.



Forming



Storming & Norming



Performing

IceBreaker!



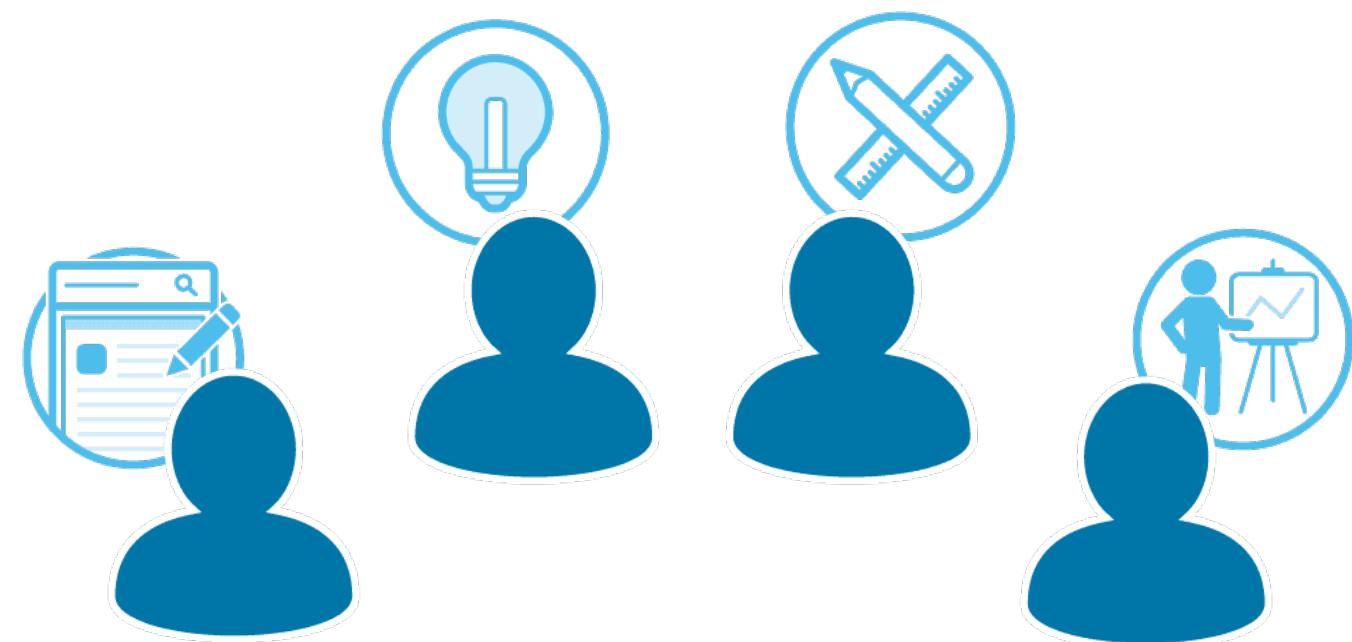
Your Name!
Your First Job!

Team Development – Storming

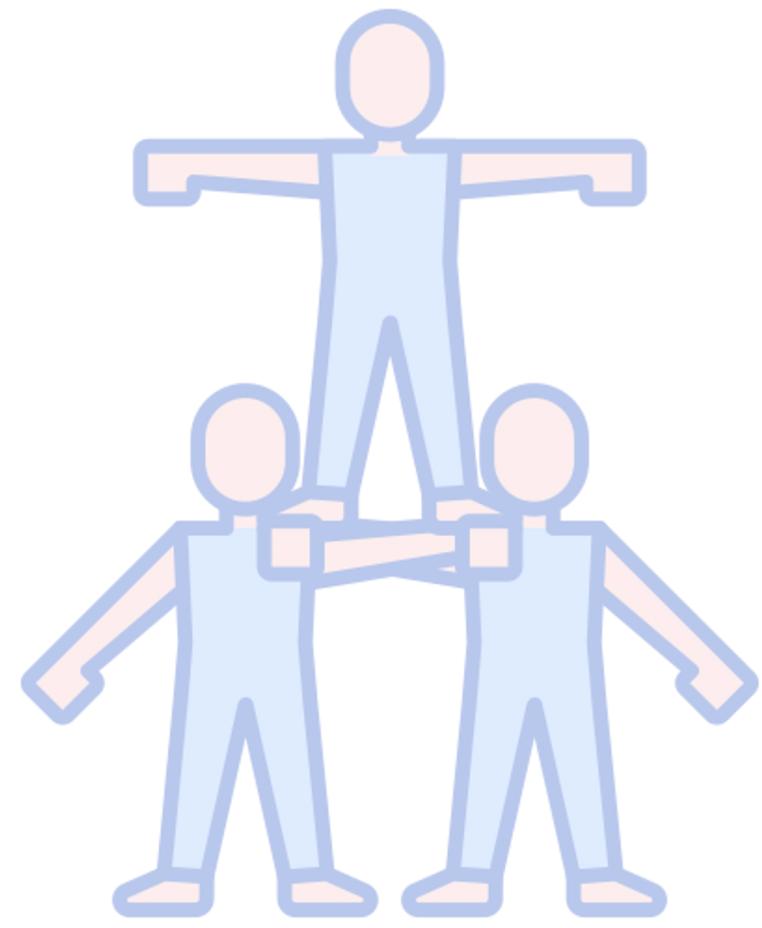
Teams often go through steps or phases during their development.



Forming



Storming & Norming



Performing

SWOT Analysis

Internal

Positive

Strengths



What are your personal internal strengths or skill that you can lean on to achieve your project goal?

External

Negative

Weaknesses



What prevented you from **completing your project goal**? In what areas do you **need to improve**?

Opportunities



What external opportunities such as resources or people, can you take advantage of to help you to achieve your project goal?

Threats



What **external threats or obstacles** do you face? What are your **competitors** doing that you are not?

SWOT Analysis - Example

Quick Learner
Creative
Good at Multi-task
Fluent Python Programming

Internal

Positive

Strengths



What are your personal internal strengths or skill that you can lean on to achieve your project goal?

Negative

Weaknesses



What prevented you from completing your project goal? In what areas do you need to improve?

Avoid Presentation
(Nervous, Not Confident)
Procrastination

External

Our team is collaborating closely for preparation for the project.

The project requires me to be a main developer for reporting

Opportunities



What external opportunities such as resources or people, can you take advantage of to help you to achieve your project goal?

Threats



What external threats or obstacles do you face? What are your competitors doing that you are not?

Overload work

Lack of python packages to achieve the project goal

SHOW your own
SWOT Analysis

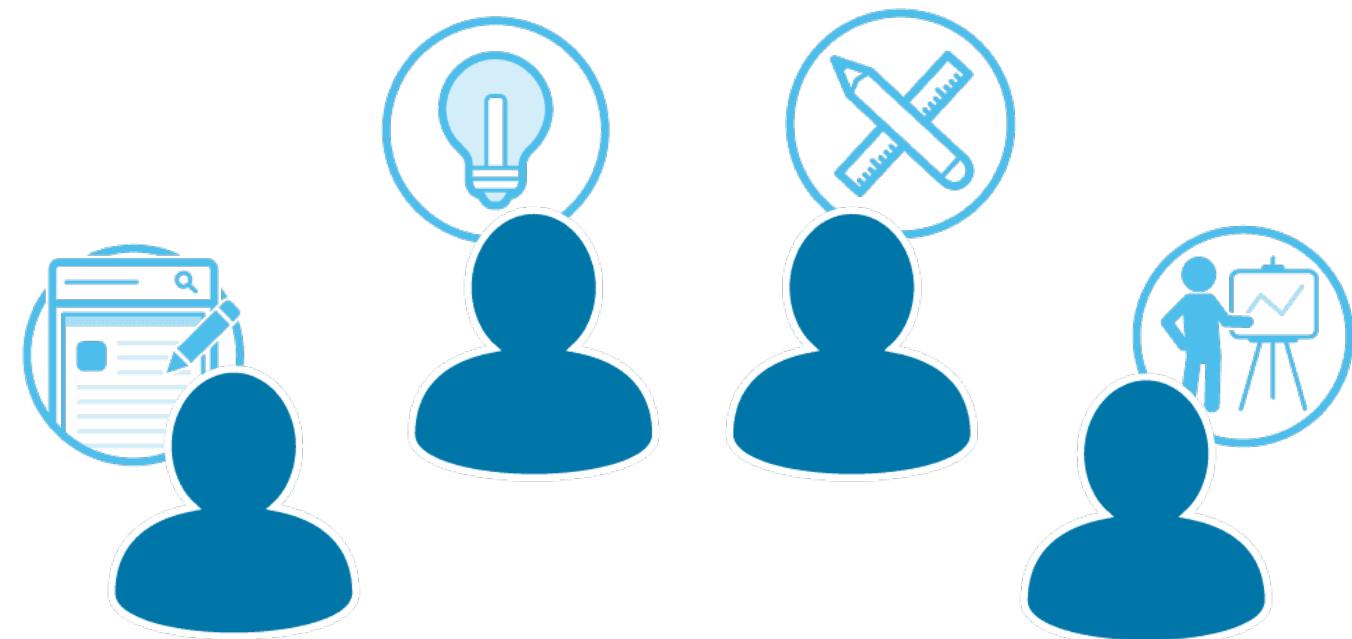


Team Development – Norming

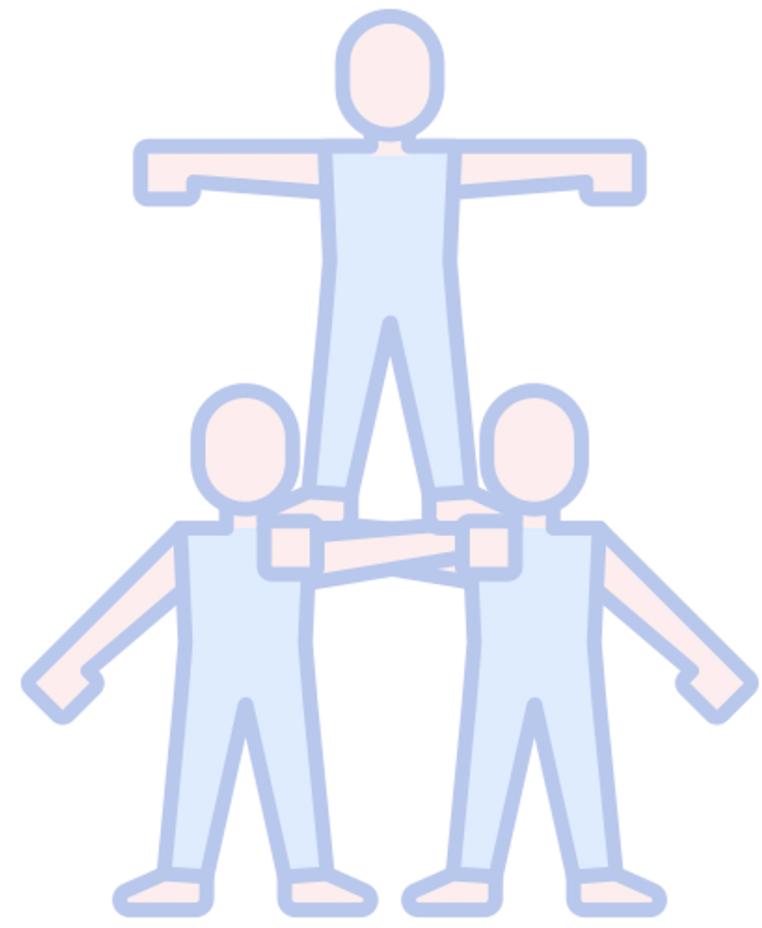
Teams often go through steps or phases during their development.



Forming



Storming & Norming



Performing

SWOT Analysis - Solution



SHOW your own
SWOT Solution

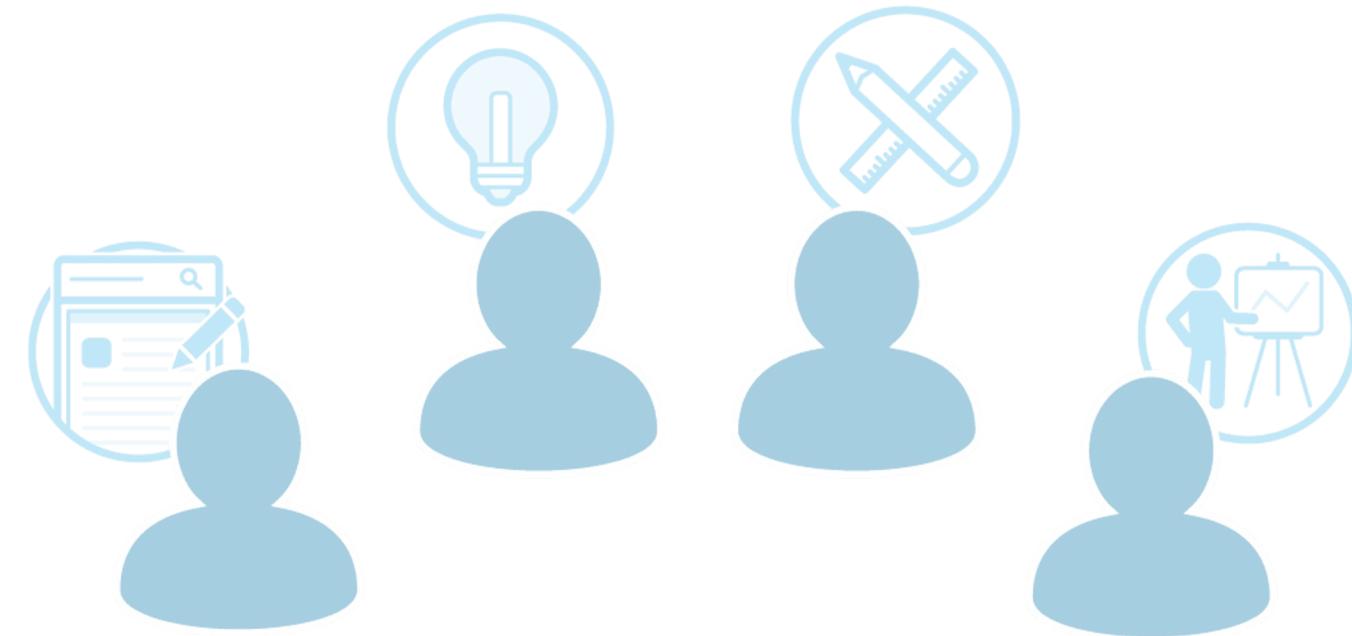


Team Development - Performing

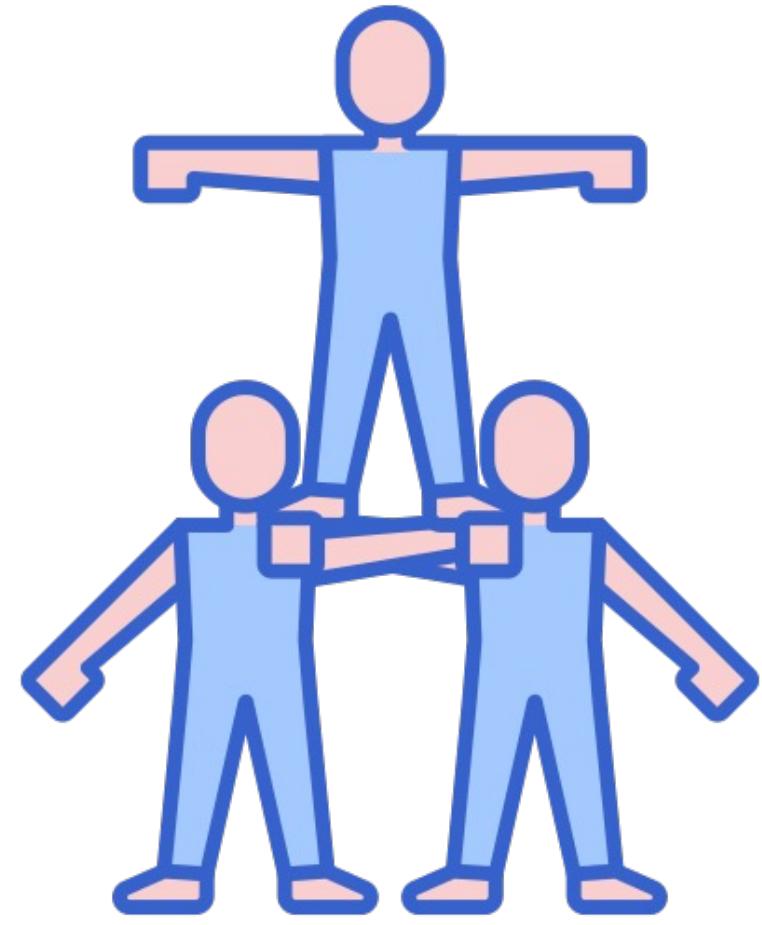
Teams often go through steps or phases during their development.



Forming



Storming & Norming

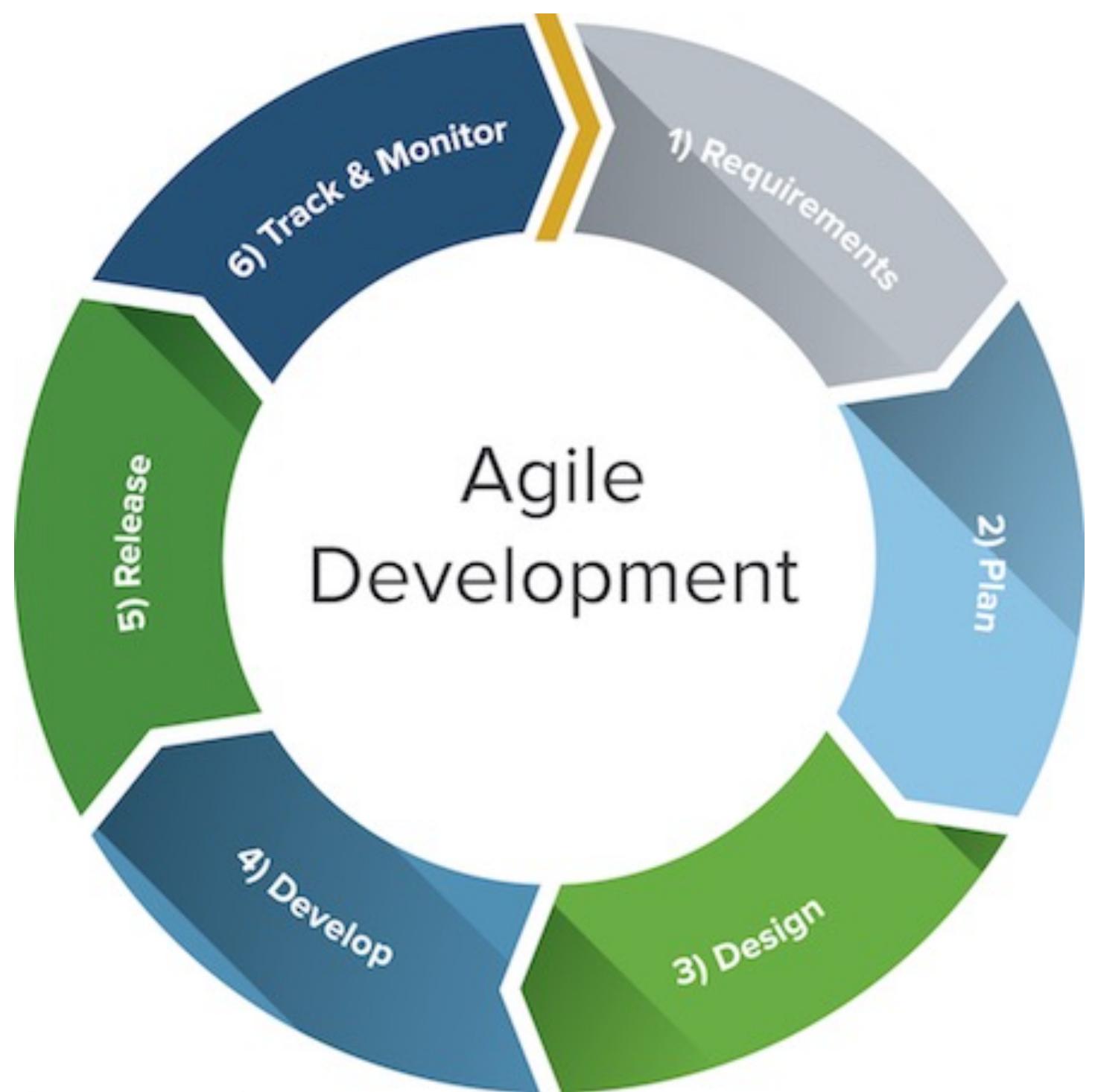


Performing

Clarifying the Mission

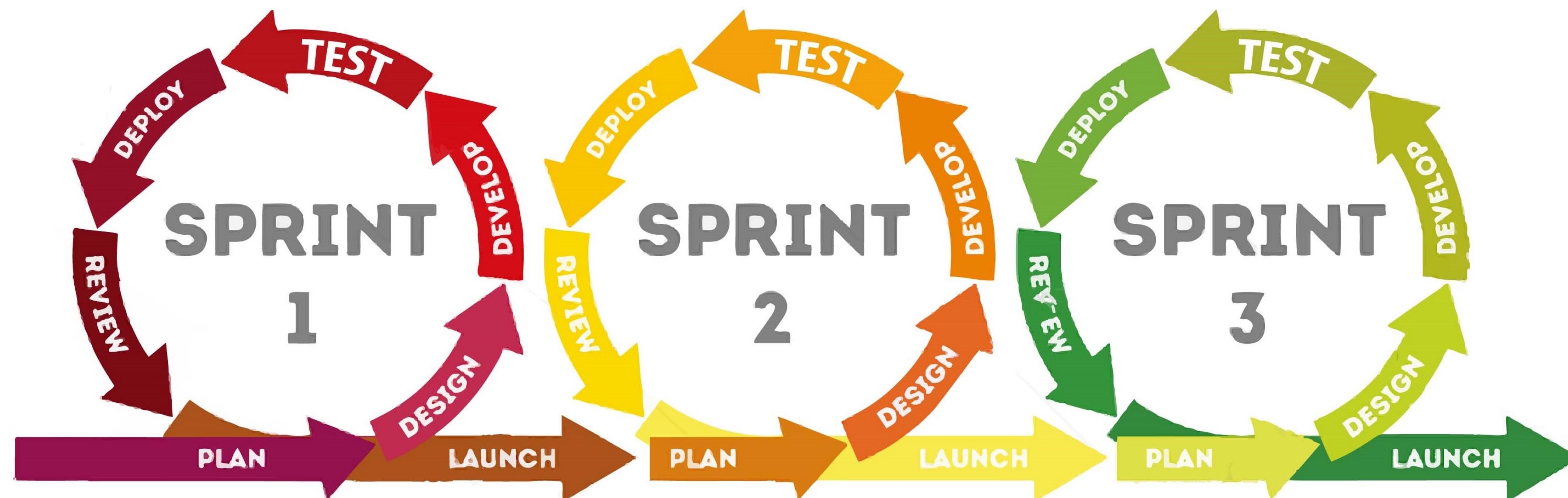
The team's mission is to produce a product/outcome that satisfies the Project Aim using the Agile Software Engineering process.

Understanding the mission begins with understanding the product the team will produce.



Clarifying the Mission

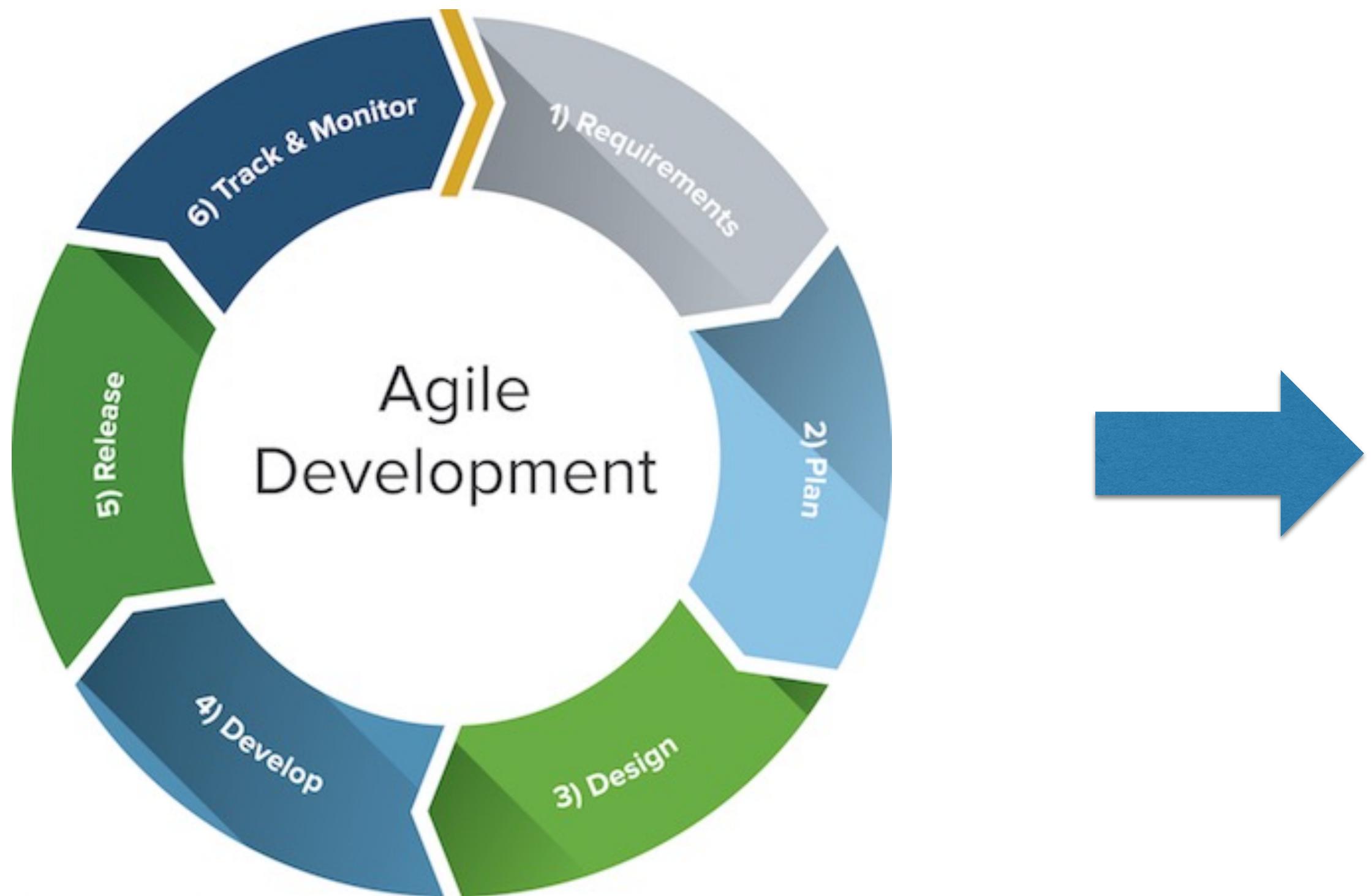
The team's mission is to produce a product/outcome that satisfies the Project Aim using the Agile Software Engineering process – sprint!. Understanding the mission begins with understanding the product the team will produce.



Clarifying the Mission and Milestones

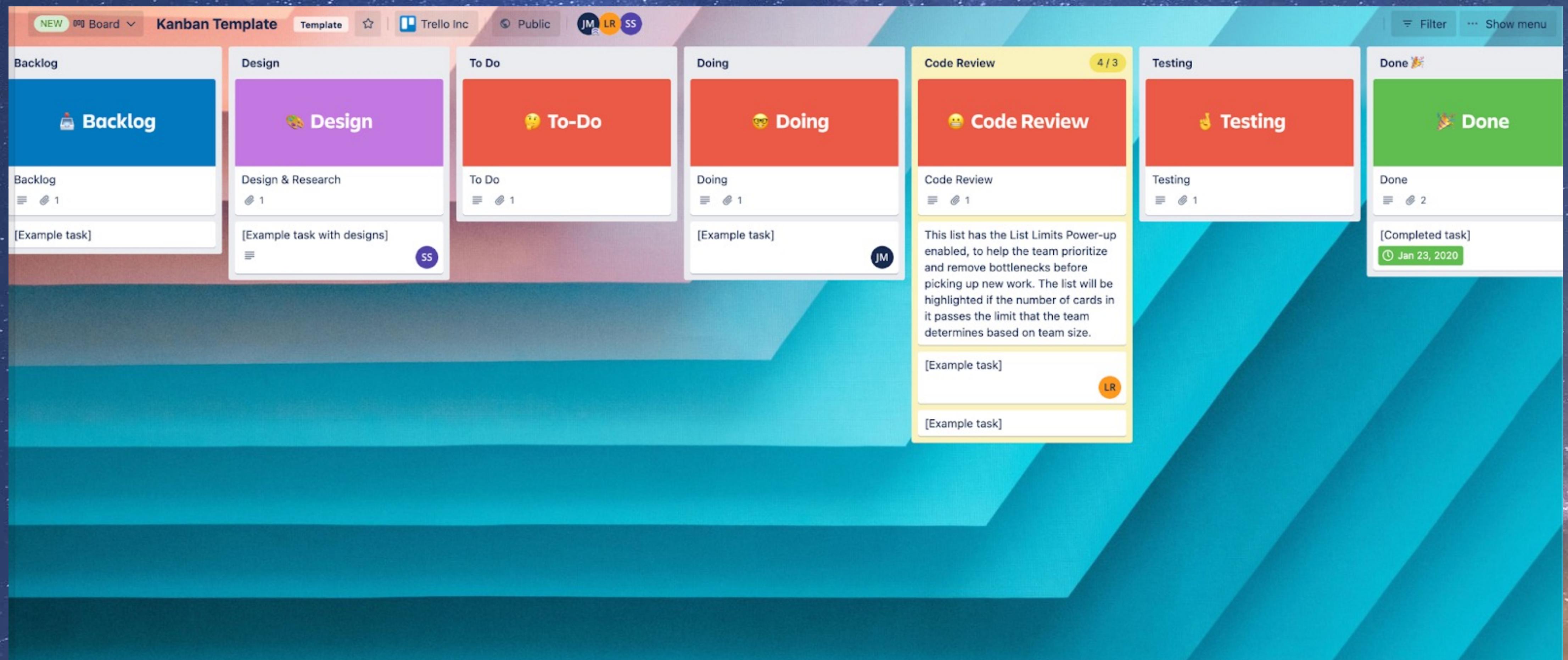
The team's mission is to produce a product/outcome that satisfies the Project Aim using the Agile Software Engineering process.

Understanding the mission begins with understanding the product the team will produce.



Real-World
Example

SHARE YOUR TRELLO!



Creating Processes

For a team to work efficiently, it needs a standard way of operating!

By defining processes, team members know how to accomplish team tasks and they spend more time working on problems that contribute to the goal.

- **Standards of behaviour:** Set some clear rules for behaviour.
These rules should promote focus, openness, trust, and commitment.
- **Team communication:** How will you keep each other informed of progress?
When does the team plan to have the Meeting?
When are other communication methods, like email or texting, appropriate?
- **Making decisions:** What decisions can individuals make and what decisions must the team make?
Will the team decide actions by voting or consensus?
The best approach is to make decisions by consensus, not by voting.
Voting divides a team into winners and losers, whereas consensus encourages each team member to cooperate.

GOOD LUCK WITH YOUR PROJECT!

Dr Caren Han
University of Western Australia



THE UNIVERSITY OF
WESTERN
AUSTRALIA