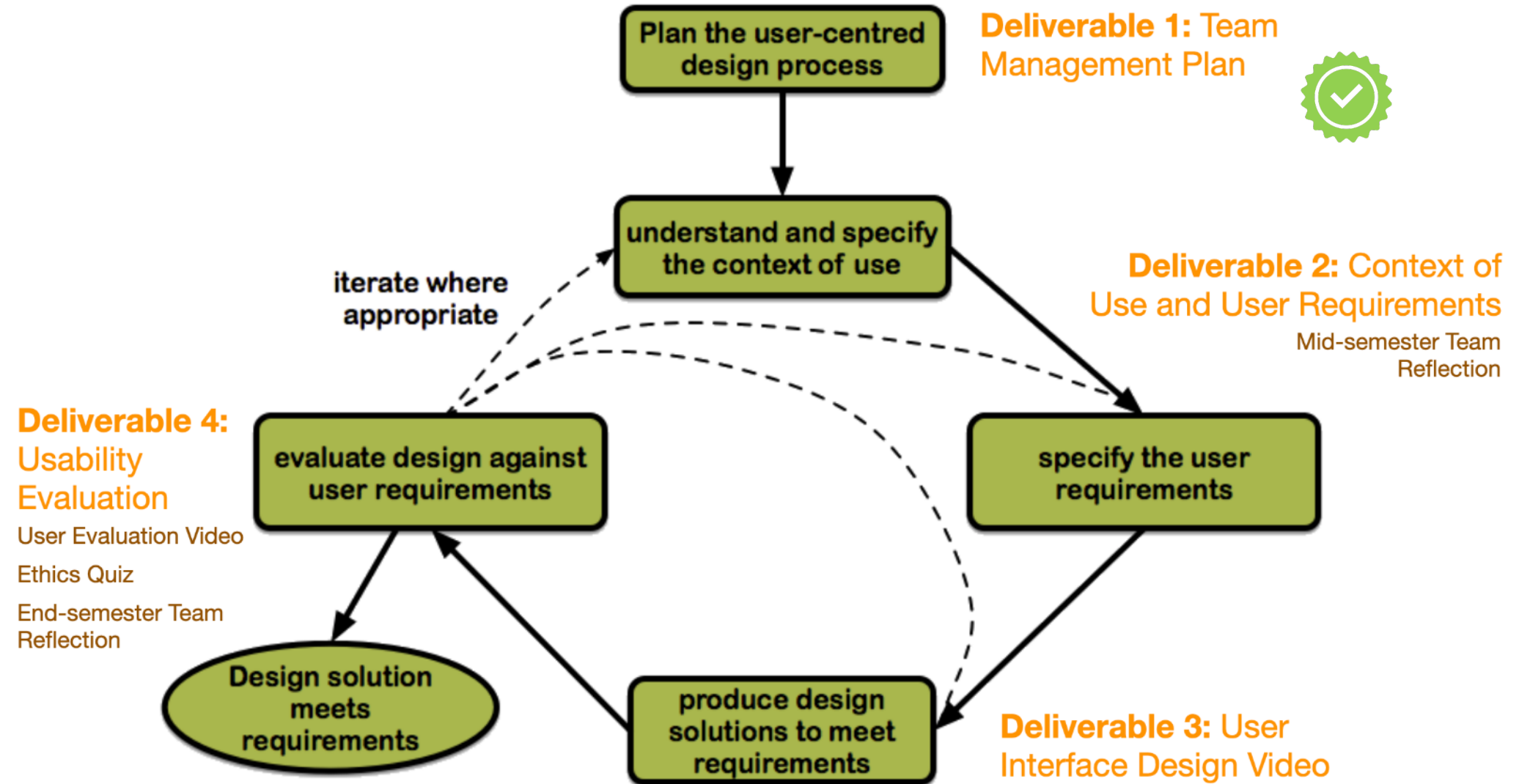


A 10x10 grid of dots on a white background. The dots are arranged in 10 rows and 10 columns, forming a square pattern. Each dot is a small black circle. The grid is centered on the page.

Agenda

- Questions since last week
- Team stand-ups
- Mid-Semester Self and Peer Assessment
- Context of Use and Requirements Report
 - Models section
 - user model
 - flow model
 - task model

UCD Process



Upcoming Assessments

UCD 2: Context of Use and Requirements (due W5)

- Complete draft models
- Check with tutor
- Draft Requirements

UCD Project Report (due W6)

- Download and review topic research paper
- Identify three insights/recommendations... **make sure very specific to Project**

UCD 3: User Interface Design (due W9)

- Start learning prototyping tool



Reflection



How did you and your team go on first assessment?



What will you do differently for next assessment?



Discuss any team issues with your tutor

SparkPlus Results



Review your feedback from your team on SparkPlus

How would have your rating affected your mark for this assignment?

How can you improve on next assignment?

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UCD 2: Context of Use and Requirements (due Week 5)

Purpose

- develop an understanding of the context of use
- **document the context of use**
- specify user requirements

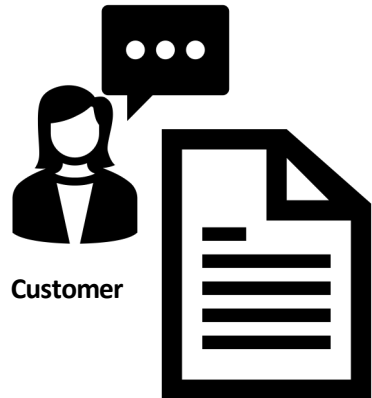
ISO UCD Principle of the week:

- The design is based on an explicit understanding of users, tasks and the environment

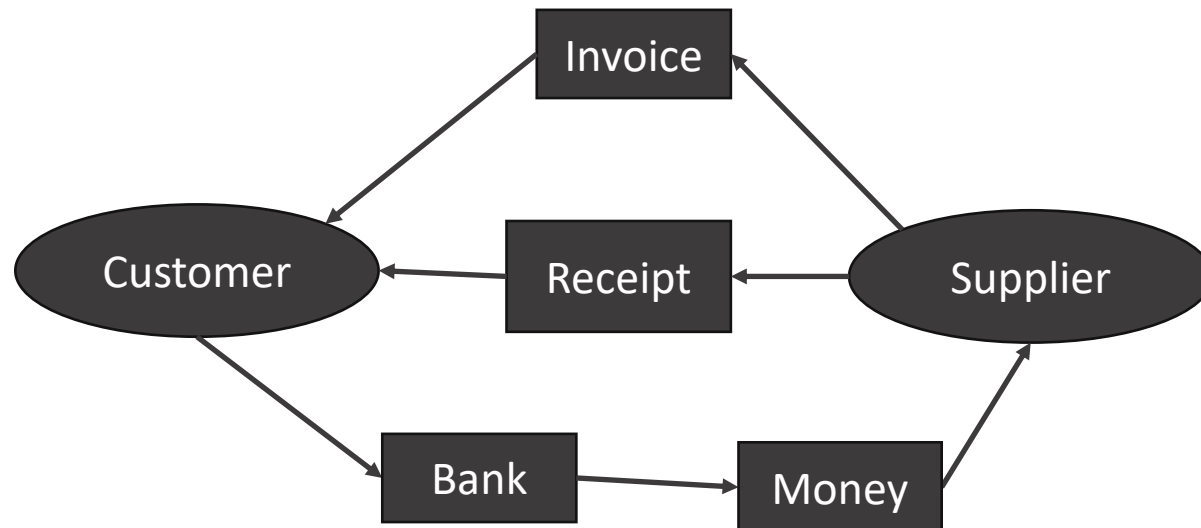
UCD 2: Context of Use and Requirements

Models

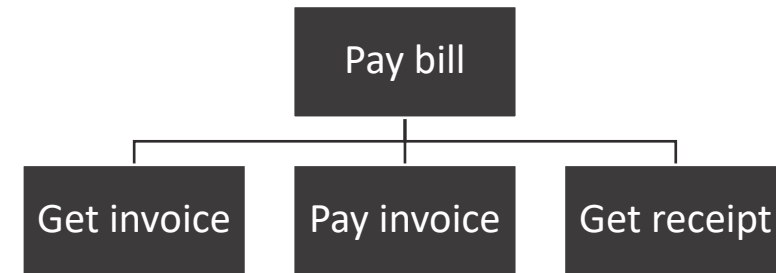
- Document context of use
- Help develop and maintain shared understanding
- Help identify requirements



Persona



Flow Model

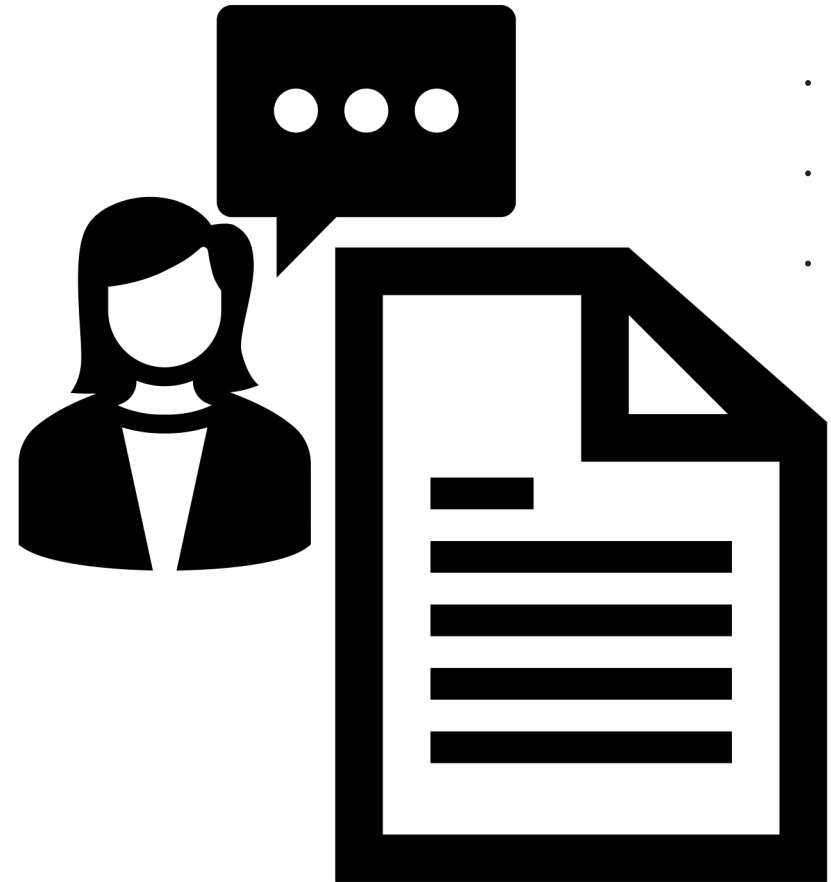


Hierarchical Task Inventory

Deliverable 2: Context of Use and Requirements

User Model

- What is the purpose of a user persona?
- What information is in a user persona?
- What user group/s should have a persona?
- Where do we get information for our persona?



Case Study: Low Water Warner

Farmers on large Australian cattle farms may have to travel 100's of kilometres to check the water supplies for their cattle.

The aim of *Low Water Warner* is to remotely monitor water troughs and tanks and reduce the need for them to check them manually.



Transcript: Low Water Warner

Participant code
(ethics)

Participant
comment

Comment code

P1	A few times a week I head out to check the tanks and water troughs. Cattle don't last long in this heat if the water stops.	<i>1.11</i>
P2	I think technology has a role to play in farm management, but I don't want to muck around with something that's hard to use.	<i>2.05</i>

What can you tell about the participants from these comments?

Persona: Australian Cattle Farmer



“Pump breakdowns are a fact of life on the farm. My biggest worry is whether the stock has water, especially when we have regular daytime temperatures over 40 degrees”

Bill is a 49 year old third-generation farmer who took over the family farm 5 years ago. He has always had an open mind about bringing in new technology to farming, but he has no patience for IT that is hard to use.

Bill and his wife Leanne run their 8,000 square km outback NSW cattle farm with the help of their farm labourer Jim.

On any given day Bill, Leanne and Jim can be moving cattle to different paddocks, checking and fixing fencing, repairing machinery, removing weeds and generally looking after the welfare of the cattle.

The cattle on Bill and Leanne’s farm graze on native plants which requires careful management to avoid overgrazing. Their farm is in a low rainfall area so making sure the cattle have access to water is critical to the success of the farm.

Tasks

- Looking after the welfare of his cattle
- Maintaining farm infrastructure

Key Attributes

- Open to, but wary about technology
- Lives in remote area
- Works with a small team
- Experienced farmer
- Concerned about cattle's access to water

Persona: Australian Cattle Farmer



*I love working
on my cattle
farm.*

Bill is a 49 year old third-generation farmer who took over the family farm 5 years ago. He has always had an open mind about bringing in new technology to farming, but he has no patience for IT that is hard to use.

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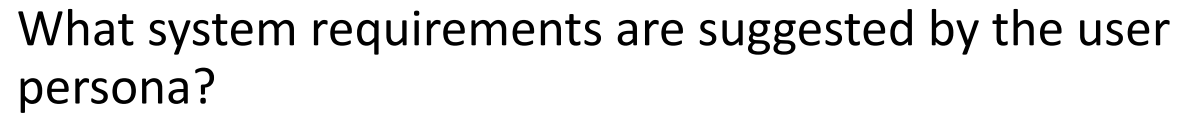
Tasks

- Looking after the welfare of his cattle
- Maintaining farm infrastructure

Key Attributes

- Keen to use technology
- Works with a small team
- Experienced farmer

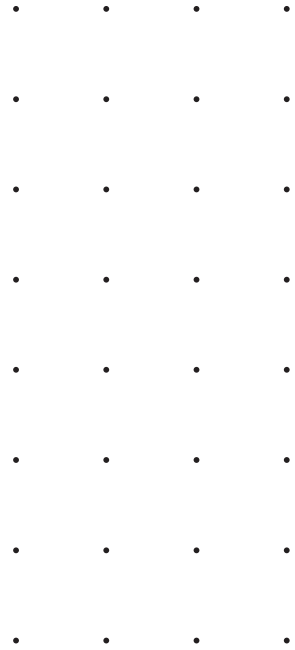
A 10x4 grid of dots. There are 10 rows and 4 columns of dots. Each row contains 4 dots, and each column contains 10 dots. The dots are arranged in a regular grid pattern.



Usage Scenario

Usage Scenario

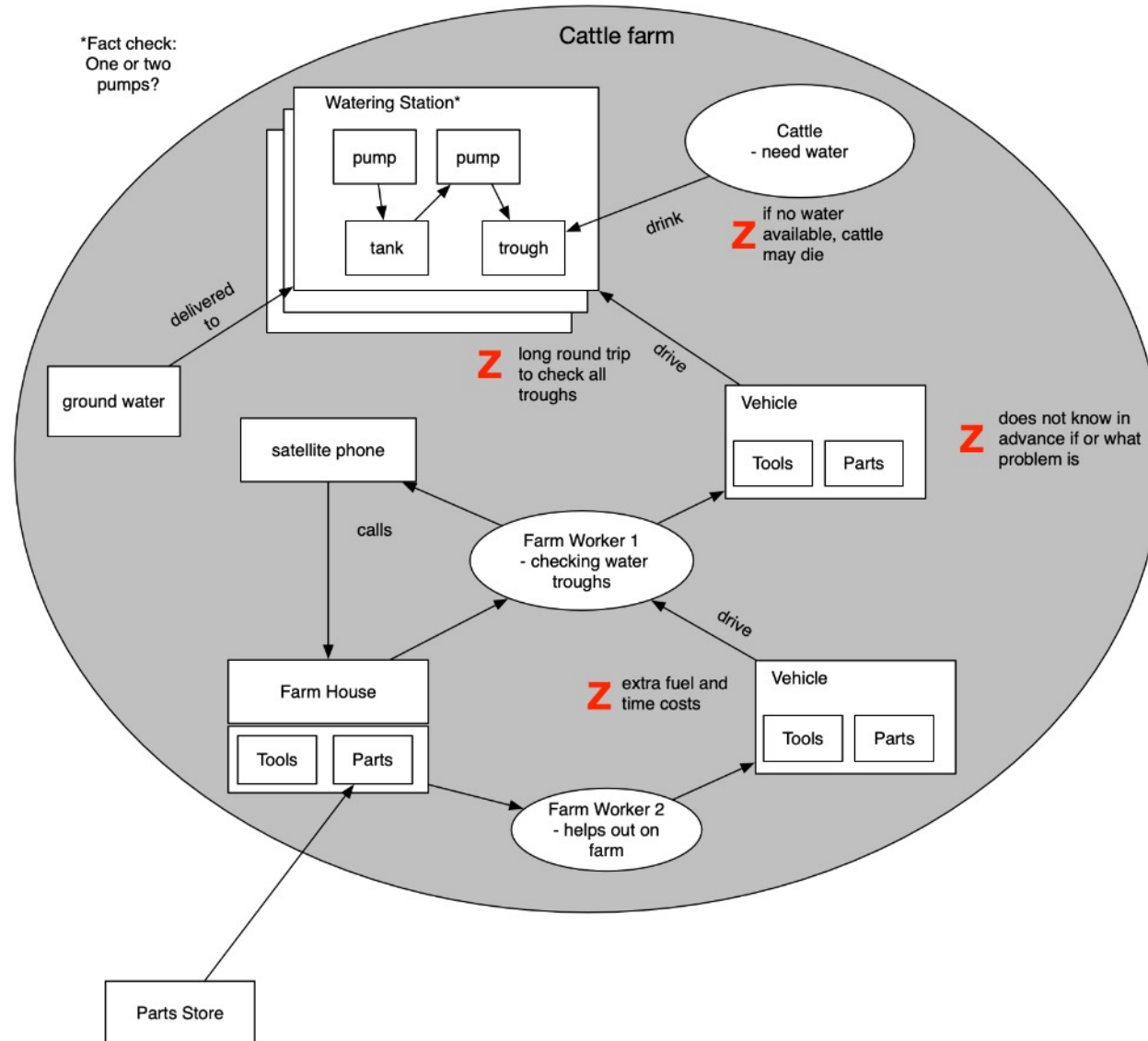
- What is a usage scenario?
- Why are scenarios useful?
- How do usage scenarios relate to personas?



Usage Scenario: Check water supply

Bill farms cattle on an 8,000 square km property in outback NSW. Water for the cattle is pumped from underground to a tank which then feeds into a trough. If a pump breaks down, or water flow to a trough is compromised, it is critical that water is restored as quickly as possible. It takes a 300 km trip to check water is available in all the troughs. Bill carries some tools and parts in his vehicle, but he can't always fix the problem with what he has, so he calls back to the farm on their only satellite phone and gets Leanne or Jim to bring it out. After 'fixing' a problem he usually goes back to check the trough again the next day as he knows from experience that sometimes a fix doesn't always work.

Flow Model: Check water supply



Who are the users?

Give example of:

- non-user entity
- Breakdown

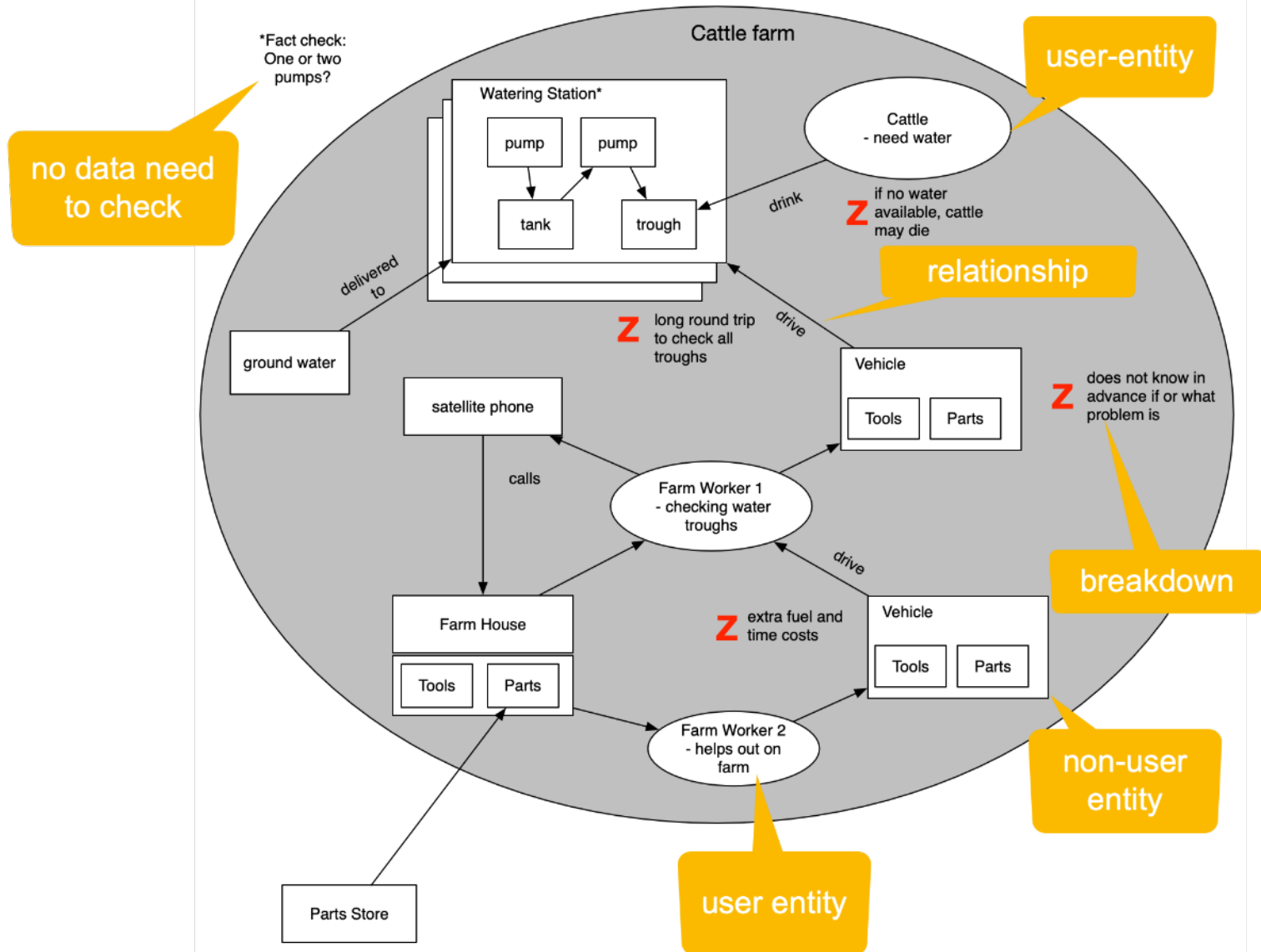
Can you find another potential breakdown?

Flow model: Check water supply

Hints:

- Do not include proposed app/solution in this diagram, describe what users are doing before app built
- Do not use proper names in model (e.g., Bill, Leanne) model must be generalised

Example only NOT this semesters case study



Requirements

What requirements are suggested by the flow model?



Requirements

1.1 Low water notification

Requirement: The system shall notify the user if the water level in a trough is low. [flow model]

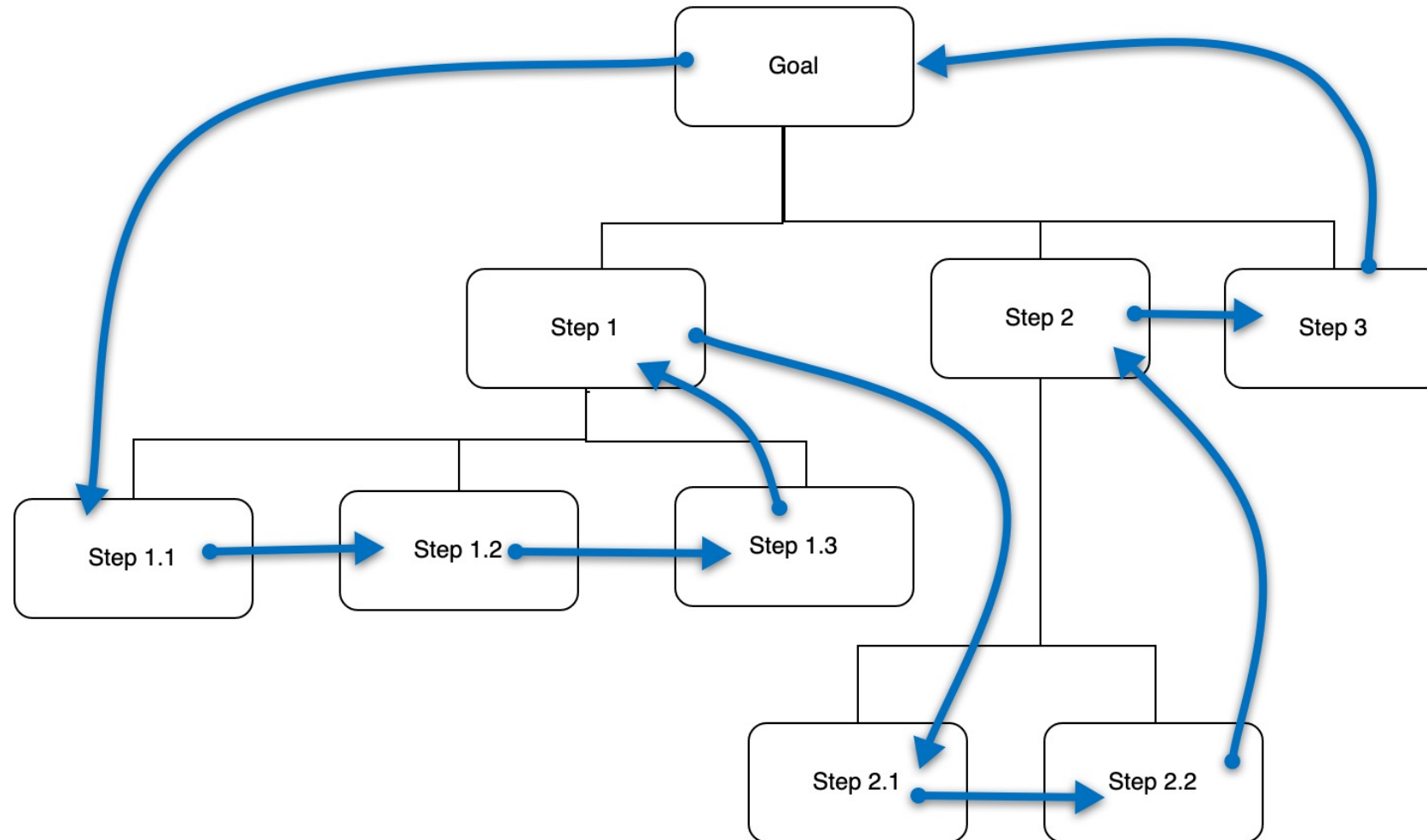
Rationale: An automated alert will save the user several hours of driving.

Note: Sensors will need to be installed on trough and notification may need to be sent via satellite connection due to remote nature of site.

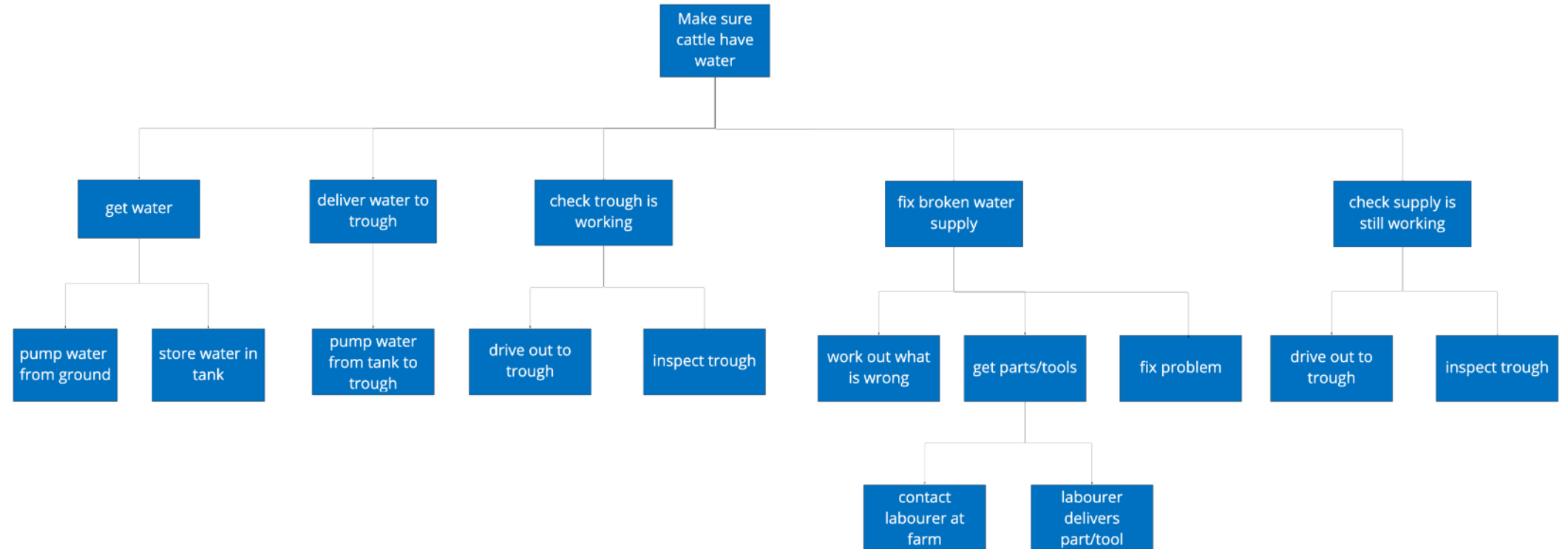
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Hierarchical Task Inventory (HTI)



HTI Model: Check water supply



What steps can we eliminate with new technology?

Energy Balance App

Build models for context of use

Two models required

Suggested models:

- User model
- and Flow **or** HTI model

IMPORTANT:

- Flow and HTI are difficult
- Bring draft next week!



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UCD Research Report (Individual due Week 6)

We don't have time to do detailed research on how to help people reduce energy use.

- What to do?
- Consult academic literature!

To be Announced

Review research paper (and other literature) to identify insights and recommendations for Project.



UCD Research Report (Individual due Week 6)

Purpose

- The purpose of this document is to help you understand how to use a research article to help you do a project.

Rubrics

- Depth of research and understanding of content
- Application of research
- Written expression
- Visual presentation
- Academic integrity

ChatGPT

If you use ChatGPT, cite your interactions (see suggestions for citing ChatGPT at <https://apastyle.apa.org/blog/how-to-cite-chatgpt>)

Verify work produced, be aware that ChatGPT:

- Can produce biased or outdated information
- may fabricate information
- Do not put personal or sensitive information into ChatGPT

Before next week



UCD 2: Review interview data

Look for data related to each of the different models

Make sure to focus on data relevant to Project objectives



UCD 2: Build models

Complete User model

Draft HIT **or** Flow model



Prepare a Stand-up

All: Show draft models to tutor

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<<https://www.agtrader.com.au/news/livestock-cattle/how-remote-water-monitoring-has-changed-life-on-this-outback-station>>