

User Discovery to User Stories

17-316/616 Fall 2025

AI Tools for Software Development

<https://ai-developer-tools.github.io>

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Today's Class

- Turn user discovery into user stories, integrate needs and feedback into user story, develop a storyboard to communicate ideas
- Mobbing session
- Team Meeting
 - Team Setup

Administrivia

- Sign up for Reflections! <https://bit.ly/reflection-week-3>
- Marylee will be taking pictures today for SCS News. If you don't want your picture taken, let me know.

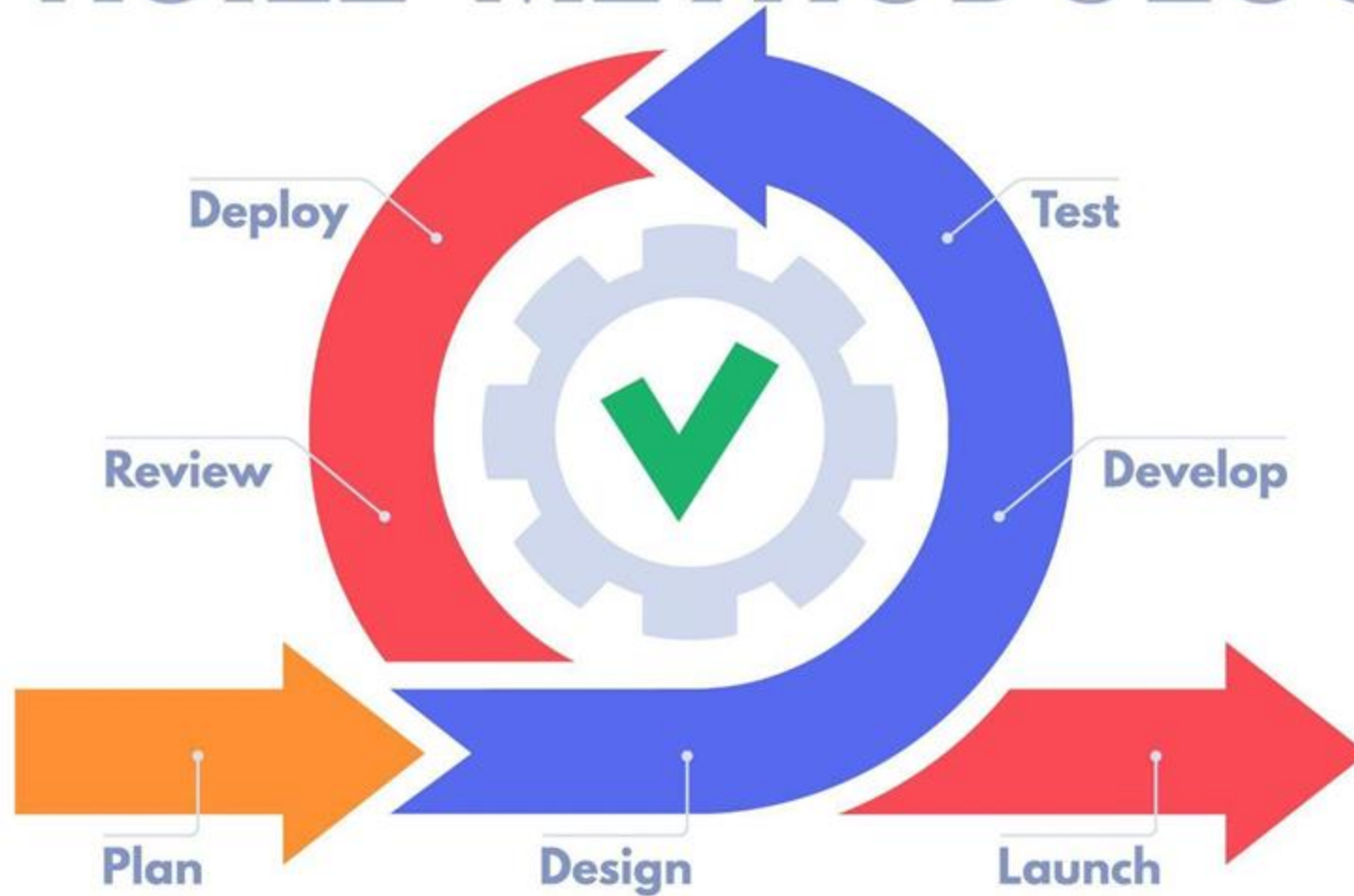
Sign up for Mobbing

- Add your name to this spreadsheet:
<https://bit.ly/mobbing-signup>
- You must sign up for (at least) one slot.
 - Mobber: Typing at the computer into an LLM.
 - Notetaker: Taking notes about what works and doesn't work on Slack.
- You will play the role of mobber *and* notetaker during the class session. (We'll swap halfway through).
- If there are any empty slots after signup, we'll ask for volunteers to go again.

Software Process

- So many software processes...
- How do we choose?
- Let's ask ChatGPT!

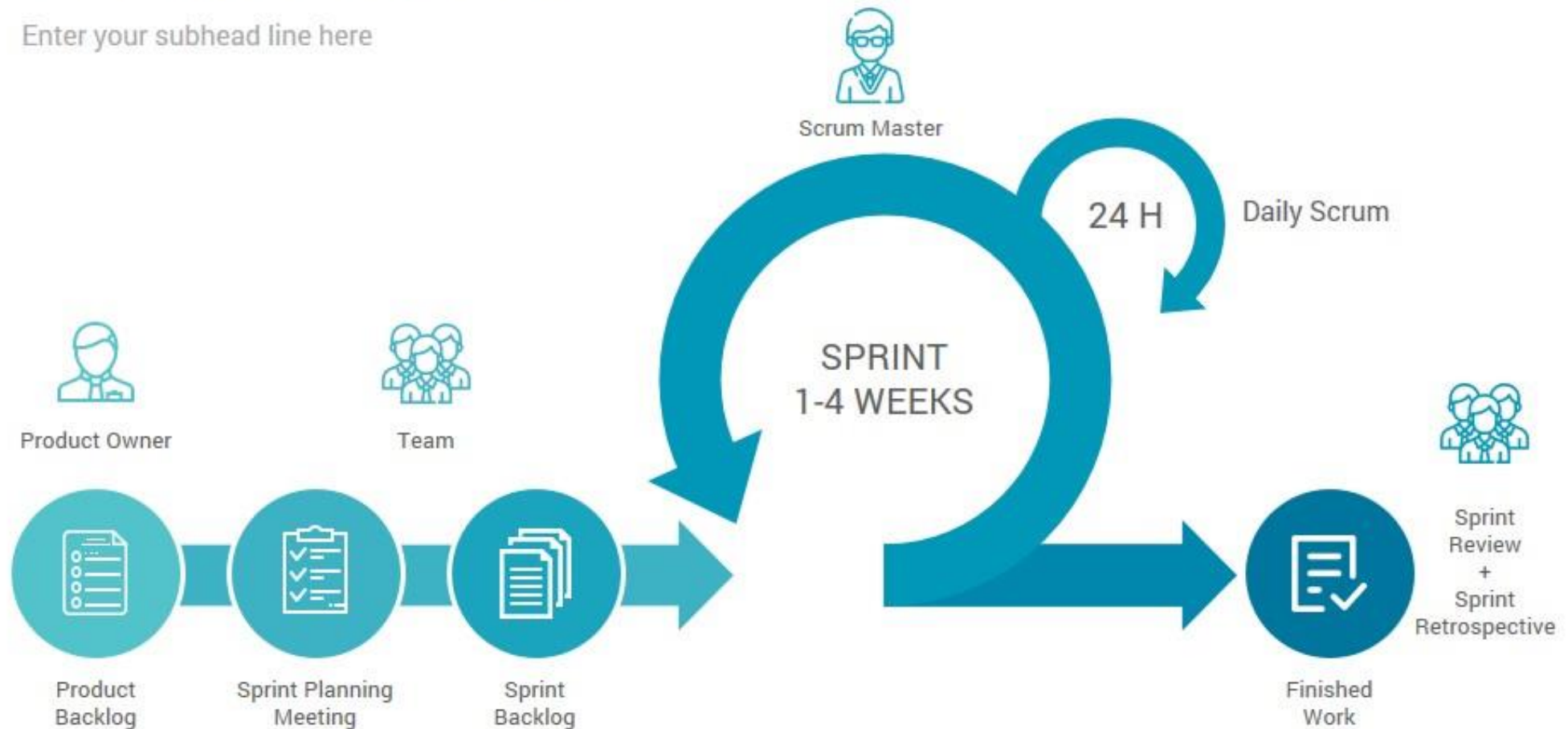
AGILE METHODOLOGY



Elements of Scrum

Scrum Process

Enter your subhead line here



Backlogs

The **product backlog** is all the features for the product

The **sprint backlog** is all the features that will be worked on for that sprint. These should be broken down into discrete tasks:

- Fine-grained

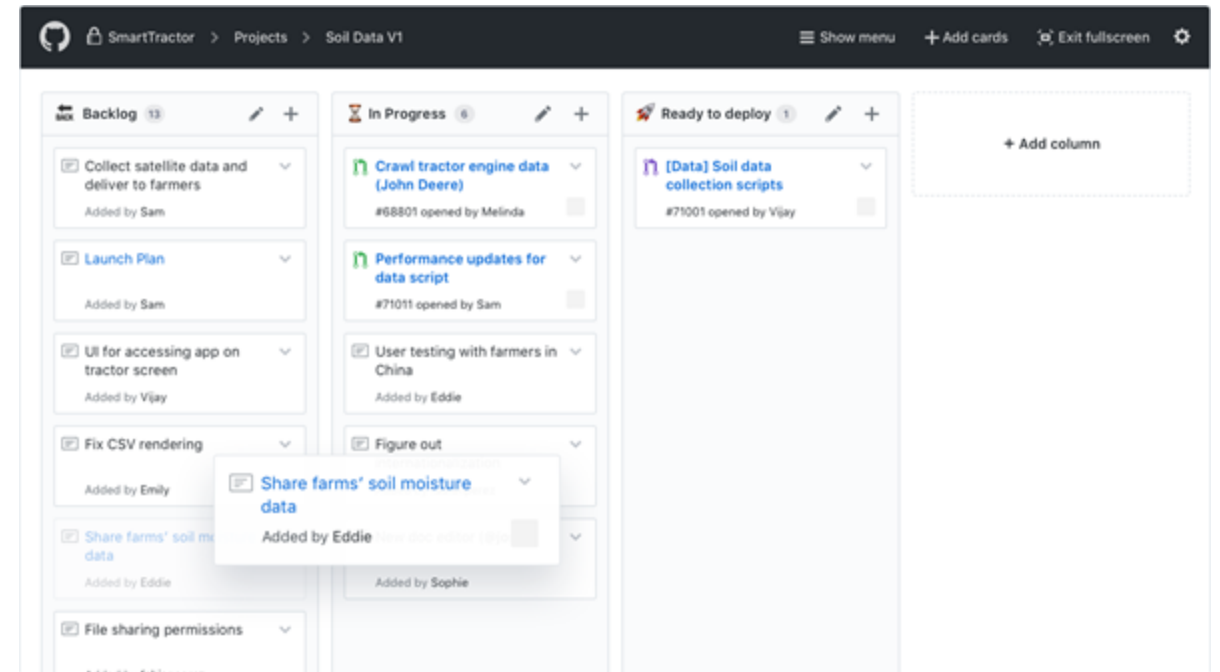
- Estimated

- Assigned to individual team members

- Acceptance criteria should be defined

User Stories are often used

Kanban boards



Scrum Meetings

Sprint Planning Meeting

LLM decides what to tackle for that sprint and Team reviews

Daily Scrum Meeting

Quick Meeting to touch base on :

What have I done? What am I doing next? What am I stuck on/need help?

Sprint Retrospective

LLM reviews sprint *process* and team discusses

Sprint Review Meeting

LLM reviews Product and team discusses

User stories

- We plan using units of customer-visible functionality



Our official user story format

“As a [user], I want to [action], so that [benefit]”

Followed by acceptance criteria

Mobbing Activity

- Let's get the LLM to make the user stories for Google Docs.
- Everyone take your user discovery transcripts from Monday's class and copy their text into the #mobbing channel.
- Mobber will come to the hot seat.
- Notetaker sits in the front of the class with their laptop to take notes in the #mobbing channel.
- Now, everyone tell the mobber what to say to ChatGPT to get it to create 10 user stories. Be sure it incorporates what you all learned from user discovery.

How do we evaluate a user story?

Follow the INVEST
guidelines for good
user stories!

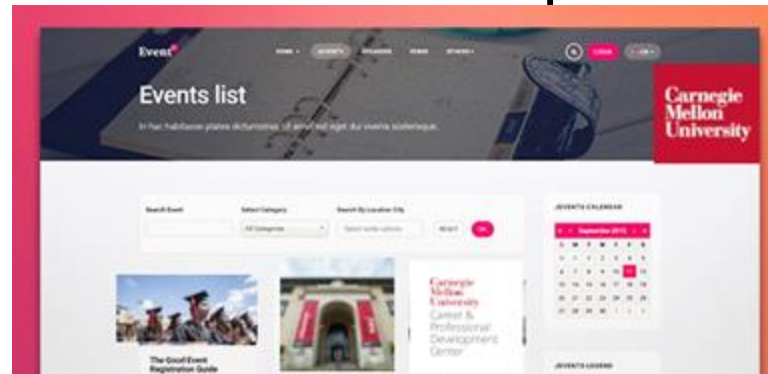


Source: <http://one80services.com/user-stories/writing-good-user-stories-hint-its-not-about-writing/>

one 80
services

Example

The university is looking to enhance student and staff engagement by creating an online platform where all university-related events are easily accessible. The goal is to provide a user-friendly website that serves as a central hub for information on various activities, ranging from academic seminars to sports events and club meetings.



Mobbing Activity

- Now let's use the LLM to evaluate the user stories based on the INVEST framework
- How can the user stories be improved?

Independent

- Can be scheduled in any order
- Not always possible



- Using the LLM... which are independent? Which aren't?
- How to make them independent?

Negotiable



- Details to be negotiated during development
- A good story captures the essence, not the details
- Using the LLM... which are negotiable? Which aren't?
- How can they be improved?

Valuable



- This story needs to have value to someone (hopefully the customer)
- Easy to forget *why* you are doing what you are doing
- Using the LLM... which are valuable? Which aren't?
- How can they be improved?

Estimable



- Helps keep the size small
- It should provide enough details to estimate the amount of effort needed
- Using the LLM... which are estimable? Which aren't?
- How can they be improved?

Small



- Fit on 3"x5" card
- At most two person-weeks of work (one sprint)
- Too big == unable to estimate
- Using the LLM... which are small? Which aren't?
- How can they be improved?

Testable



- Ensures understanding of task
- We know when we can mark task “Done”
- Unable to test == do not understand
- Using the LLM... which are negotiable? Which aren't?
- How can they be improved?

Mobbing Activity

- Now that we understand the INVEST framework, regenerate the 10 user stories from scratch. Don't forget to incorporate what you learned in user discovery!
- Are these any different/better than the first 10?

Storyboards

- Let's use Figma Make to create a storyboard for one of these user stories!
- Storyboard is a sketch of the user's journal through a specific workflow.
 - Shows user navigation and actions
- Storyboards have a purpose
 - Design artifact
 - Can be used for usability testing
 - Can show to potential customers to get feedback

Story Components

- Who is our hero?
 - What job does she have?
 - What are her goals?
 - What challenges does she face?
 - How should our product/user story help solve her problem?
-
- We can use pre-built personas for this.
 - Example: <https://gendermag.org>

Storyboarding Mobbing Activity

- Create a flowchart for the user's journey.
- First, swap mobber and notetaker roles.
- Everyone, tell the mobber to make FigJam AI make a flowchart for one of the Google Docs user stories.
- Notetaker will take notes in the #mobbing channel.

UX Storyboarding

- We need to see how the app should look to understand how we want it to work.
- We need more parts:
 - Scenario: The user story
 - User persona: The hero
 - Visuals: low-fi screenshots, arrows, shapes to convey the journey
 - Panels: square frames with text and visuals
 - Title: step number and subject of that panel
 - Caption: panel description and provocative questions for readers

Low-fi Prototyping Mobbing Activity

- Let's create our low-fi prototype UX storyboard
- Everyone, tell the mobber to make FigJam AI elaborate the flowchart into a UX storyboard for the user story we chose.
- Notetaker will take notes in the #mobbing channel.

Reflection

- What worked well?
- What worked poorly?
- What lessons did you learn about how to get Figma to behave?

Team Meeting

1. Set up Slack
2. Set up GitHub
3. Agree to Development Hygiene

Slack Setup

- In our course Slack, create a new private Slack channel that includes all of your team members and the instructors.
- Change the channel's name to "team-<your team's name>".

Set up GitHub

- Create a new repository named the same as your team name.
 - Invite your team members to the repository.
 - Invite Andrew Begel (GitHub username: abegel) and Austin Henley (GitHub username: AZHenley) be owners of your repository.
- Set up a project Kanban board (only one person has to do this)
 - Share the Kanban/Project board with your team or make it public so they have access to it. (Even if they have access to the repo, they might not have access to the board initially. To manage access, click on the three dots in the top right and click on "Settings" and then "Manage access.")
 - Have a team member add an issue for adding team member names to the README into the "Todo" column using the "+ Add item" button at the bottom of the column. OR under the Issues tab of the team repo, have a teammate create an issue and then link the issue to the Project Kanban board using the "Projects" field (two fields below "Assignees") on the right-hand side. Specify the status as "Todo."

Good Development Practices

- Create issues for feature improvements or bug fixes
- When creating issue, assign team members and tag with appropriate labels
- When you create pull requests, reference the issue it resolves
- Provide feedback on pull requests
- Use the Kanban board to track your workflow
- Whenever checking in code, always check in your LLM chat log too. That's the real code in this class, right?

Next time

- P1 will be released this afternoon.
- Due Wednesday, September 17, 11:59pm.
- Explain dev specs and their parts with examples.
- We will turn today's user stories and Figma storyboards into dev specs using LLMs!
- Class begins with a team meeting (to discuss P1?)