Today - Topics about teamwork

- Xcode Git integration
- Agile software development
- XC Testing
- UI Testing

Xcode Git Integration demo
Agile Software Development

- A popular development methodology in the industry
- A very broad concept; has many variations subsets of practice.
- There is not a set way to do this; Implementation highly dependent on product
- Not easy to learn and teach
  - Most companies spent days to teach this to new employees.
  - Some companies spent years trying to even understand this.

One thing everyone can agree on: Agile Manifesto

Manifesto for Agile Software Development

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

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

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

Source: https://agilemanifesto.org/
Scrum

• For our purposes, we will stick with a subset of Agile called Scrum
• In fact, we will use a simplified Scrum. We will make high-level requirements for you to stick to the general idea of Scrum, but there should be enough room for you to figure out what’s the best practice for your team.
• We will first cover basic components in Scrum and then talk about the responsibilities of each role in a team.

“Story”

• In scrum, each feature in an application is called a “Story”
• Again, there are many ways to define what consists of a story, but for our purposes, for each story, we require the following components:
• What is this story about
• Why do we build this, how is it valuable
• When will this story start and finish
• Acceptance Criteria (user experience assessment, automated/manual tests of functionality etc.)

Backlog

• A board to hold stories in “cards,” separated by columns
• Each column usually represent a state of the story (to do, in-progress, testing, release etc.)
• You can decide how you want to use a backlog, as long as it reflects your team’s situation in a clear and accurate way.
• Each group must create a board (using Trello) that is shared with the Head TA
High-level Responsibilities for each role

• **Project manager:**
  - Set out plan for the project (schedule, development order etc.)
  - Specify high-level idea and description for each story. Also need to specify the appearance of UI for frontend stories
  - Stay away from details; those are for developers and testers

• **Developers:**
  - Decide on the details about how to implement each story, and develop :)
  - Refactor code based on test results passed back by testers.

• **Tester:**
  - Based on acceptance criteria in the story, decide on ways to test this story.
  - Test developers’ code and send the results to developers.
Trello Demo

XC & UI Testing
A Test Should:

- Be able to fail
- Be able to pass
- Be independent from other test

XC Testing Demo