



# CS253: Software Development

Welcome to Lecture 25!

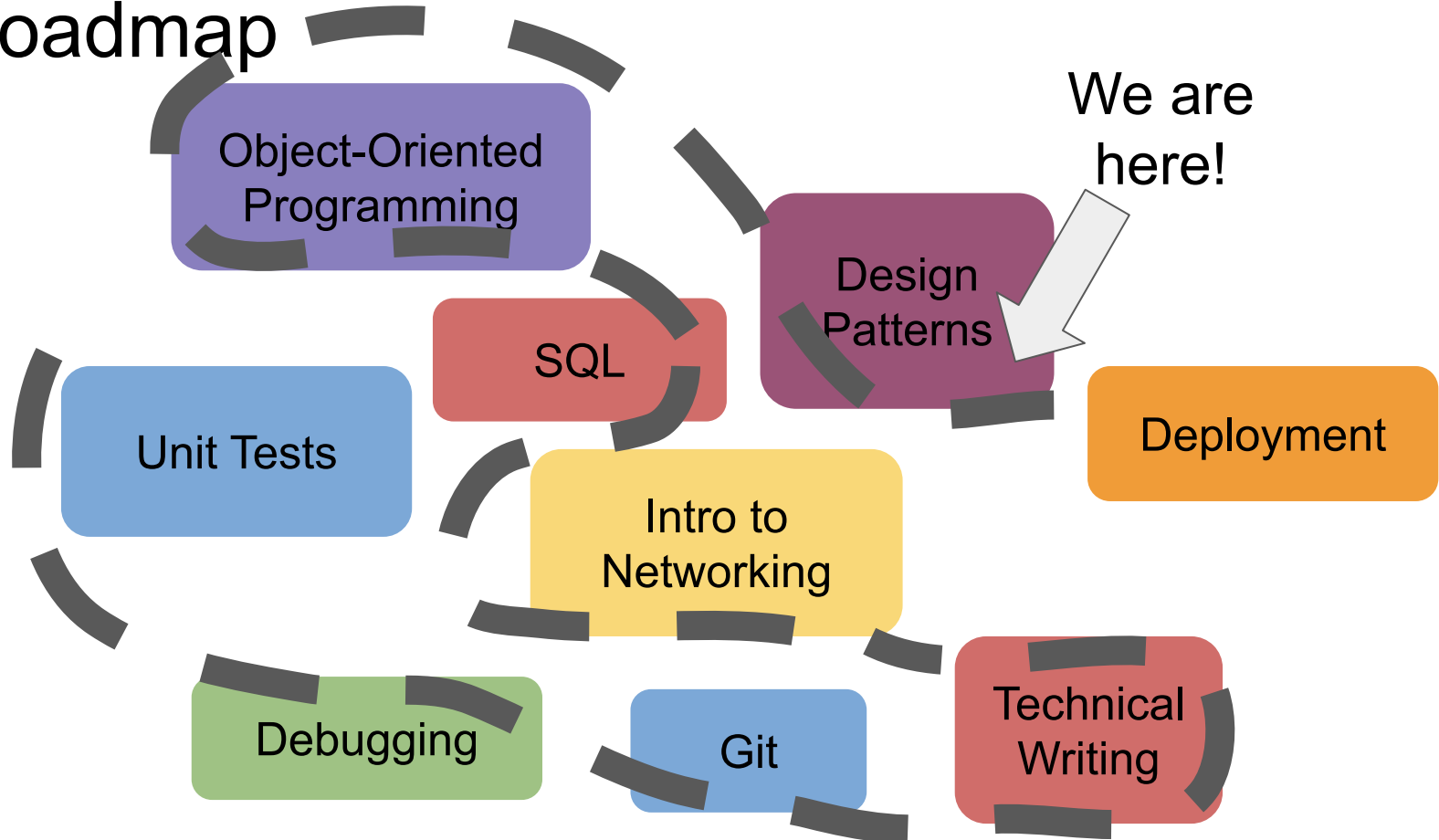
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# Announcements

- Last few lectures remaining!
- Our designated final time is 8-10am on Wednesday, December 13
- There is no final exam! But, there is the final project
- We will meet at 9am and each group will have time to show off what they made!
- Additionally, I will be sending along a self-reporting grade sheet
- Today: project management, bug reports, user interface design, CSS frameworks

# Roadmap



Object-Oriented Programming

Design Patterns

We are here!

SQL

Deployment

Unit Tests

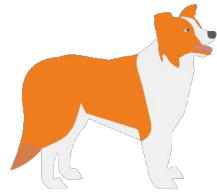
Intro to Networking

Debugging

Git

Technical Writing

Questions about anything so far?  
If no...on to the next slide!



# Project Management

- You are doing project management right now! (final projects)
- The overall points are to do what we have been doing through CS253 so far:
  - Stay organized
  - Decompose the problem
  - Have a high-level vision and a low-level understanding of what needs to be built/accomplished
  - Check-in frequently\*
  - Commit frequently

# User Interface Design

- Anticipating what users might need to do; ensure that the interface has elements which are easy to access and satisfy those needs
- [https://sun.iwu.edu/~mliffito/cs\\_codex/posts/user-interface-design/](https://sun.iwu.edu/~mliffito/cs_codex/posts/user-interface-design/)

# How to Write Effective Bug Reports

- Be specific
- Be verbose
- Read what you wrote
- <https://www.chiark.greenend.org.uk/~sgtatham/bugs.html>

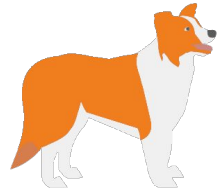
# CSS Frameworks/Bootstrap

- You *could* write a bunch of CSS a la Assignment 2, or you could use a **framework**
- One really well-known framework for styling websites is called **Bootstrap**
- (our course website uses Bootstrap!)
- [https://sun.iwu.edu/~mliffito/cs\\_codex/posts/bootstrap/](https://sun.iwu.edu/~mliffito/cs_codex/posts/bootstrap/)
- <https://getbootstrap.com/docs/5.3/getting-started/introduction/>



# Practice!

<https://jsfiddle.net/liffiton/913cgdhf/>





Thank you!