COSC 499: Capstone Software Engineering Project

Dr. Bowen Hui
Computer Science
University of British Columbia Okanagan

Term 1 Where We're At

- Everyone should know their teams well and be able to plan accordingly
- Most teams show good coding collaboration process

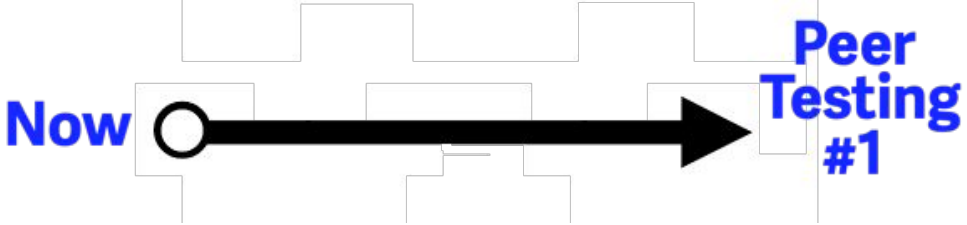
- Things to work on with new TAs:
  - Automated test reports (not the same as CI/CD)
  - Updating team logs and individual logs consistently
  - Planning milestone goals with the TAs
  - Focus on coding/testing/reviewing contributions

Term 2 Timeline

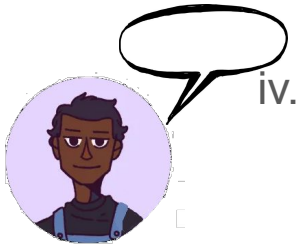
- Today: resume classes
- Jan 30/Feb 01: Peer testing #1
- Mar 05/07: Peer testing #2
- Apr 07: Final project submission

- Each deadline is about ***one month*** apart

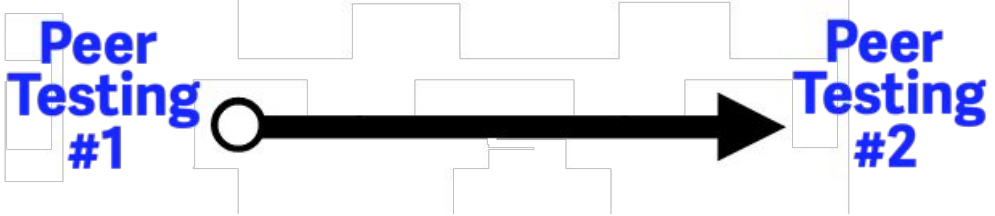
Current Tasks



- Plan for wrapping up project and revise project board accordingly
- Key points:
  a. What's left for an MVP (keep it simple)
  b. How to accommodate client needs
  c. How to deliver clean code
     i. .gitignore (secrets and build files)
     ii. need good test coverage, setup CICD, minimize console tests
        - How "foolproof" is your happy path?
        - How many paths are you allowing to get to the end goal?
     iii. ensure high code quality throughout
        - Will you be able to give a live demo after the project is over?
     iv. don't automatically trust AI-generated code



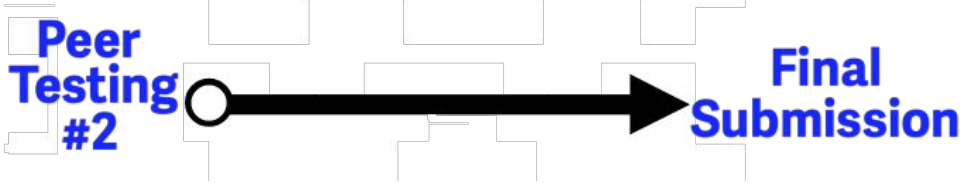
After Peer Testing #1



- You will get feedback on what worked and not
- Focus on bug fixes
- Focus on finishing your project features

- Your project should be **as complete as possible** when you do Peer Testing #2

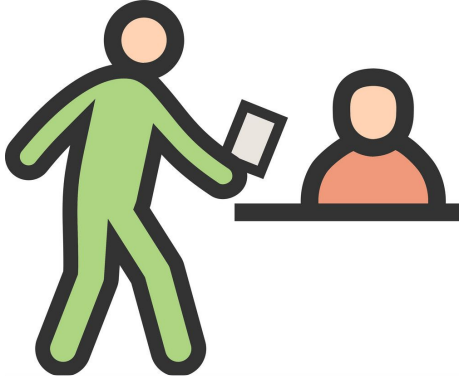
After Peer Testing #2



- You will get feedback on what worked and not
- **Focus on bug fixes and having clean code**

- You shouldn't be adding features anymore unless you don't have an MVP working
  - An MVP is minimal and does not have loaded features
  - If you choose to do more:
    - We won't stop you since it's your choice
    - If added code results in poor design, messy code, poor test coverage, etc., we will deduct marks accordingly

Final Project Submission



- Requires an **individual** project report
  with a detailed list of coding feature contributions

- For those who have not been participating actively in the team:
  - This report counts for 25% of your individual marks
  - Total individual marks is worth 40% of the course
  - You must pass **all** components to pass the course

Next Steps

- Figure out what your final deliverable will look like
- Work on having a smooth live test session for Peer testing #1
- Plan out who will say/do what (more next class)

- Next week:
  - How peer testing works

Project-Specific Feedback: Option 1 (Sharing Leftovers)

- Can you try it out with real data (actual photos) and with real users (e.g., your mom)? Is it easy to use for a general low-tech person **with no instructions**?
- What if you don't know the ingredients?
- Can users specify neighbourhoods instead of cities or street addresses?
- Will you deploy it (e.g., Google Store) and test it's actually working on other people's devices?

Project-Specific Feedback: Option 2 (AI-Generated Slides)

- Is the site easy to use for non-technical users?
- Can you provide warnings to the user if the open AI credits are running out?
- Is the generated content any good?
  - How do you know? How can you **measure the results**?
  - Whatever solution you come up with - how will you test it?
- How does the AI receive feedback from the user to tweak its generated contents so it remembers the user's preferences?
- Polish the UI/UX - ensure the workflow makes sense

Project-Specific Feedback: Option 3 (Video Streaming)

- Get the app working on AWS
- Is your app **secure** in every way?
  - Ensuring security in user authentication, file encryption, data transfer
- Does your app leverage serverless technology (e.g., RDS option)?
- Does your app allow for general usage in multiple scenarios?

Project-Specific Feedback: Option 4 (Game)

- What makes your game unique? Why would a stranger choose your game over other games?
- Will your game appeal to multiple, diverse user groups?
- Polishing the UI/UX

Rest of this Class: Tuesday

- Get into your team
- Form discussion groups on the following topics:
  - general project/AWS setup and **s3 buckets**: Seth
  - test setup: Kiet, Quan
  - database setup: Teresa, Justin
  - authentication with **Cognito**: Connor, Thuan
  - image analysis with **Rekognition**: Jan, Baz
  - hosting with **ECS/EC2**: Soren, Muhammad
- Go to discussion group and split up as you see fit

Rest of this Class: Thursday

- Get into your team
- Form one discussion group with other teams in your project option
- Discuss:
  - What does your MVP do?
  - What is unique about your MVP? Special features?
  - Any major bottlenecks encountered?
  - What advice on specific problems?