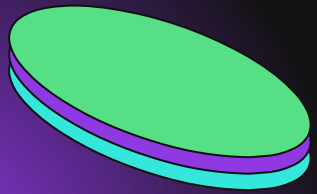
Intro to GitHub

2/11 SWIC



Why GitHub Matters

GitHub is how people build things together.

- Used by students, companies, researchers, and open-source communities
- Shows collaboration, not just coding
- Helpful even if you're not a CS major

GitHub ≠ just coding
GitHub = **version control + collaboration + portfolio**

Git vs. GitHub

Git

- Version control tool
- Tracks changes to files over time
- Runs locally on your computer

GitHub

- Website that hosts Git repositories
- Makes sharing + collaborating easy
- Adds issues, pull requests, profiles

Analogy:
Git = google docs “track changes”
GitHub = google drive + comments + sharing

What is a Repository?

A **repository (repo)** is:

- A folder for your project
- Stores files + history of changes
- Can be public or private

A repo usually includes:

- Code or documents
- README.md
- Commit history

Key GitHub Terms

Commit -> a saved change
Push -> send changes to GitHub
Pull -> get updates from GitHub
Branch -> separate version from GitHub
Merge -> combine changes
Fork -> your own copy of someone else's repo

GitHub Profiles

Your GitHub profile can show:

- Projects you've worked on
- Growth over time
- Collaboration skills

Even non-code repos count:

- Notes
- Data analysis
- Class projects
- Documentation

quality > quantity

Demo: creating a Repository

1. Click **New Repository**
2. Name it (swic-github-demo)
3. Add a README
4. Click Create

- Repo name matters
- README = first impression

README.md

A good README answers:

- What is this project?
- Why does it exist?
- How do I use it?

Simple README template:

```
# Project Title
## Description
## What I Learned
## Tools Used
```

Making Your First Commit

- Edit a file
- Write a commit message

Good commit message:
“Add project description to README”

Bad commit message:
“Stuff”

Collaboration Basics

How people work together on GitHub:

- One person creates repo
- Others **fork** or **clone**
- Changes proposed via **pull requests**
- Discussion happens in comments

This is how teams work in industry

GitHub for Non-CS Students

Github can be used for:

- Research notes
- Data visualizations
- Writing projects
- Design files
- Club documentation

If you can upload files -> you can use GitHub

Common Fears

“I’m scared of breaking something”
-> Git tracks everything

“I don’t know enough yet”
-> no one does at first

“My repo isn’t impressive”
-> growth matters more

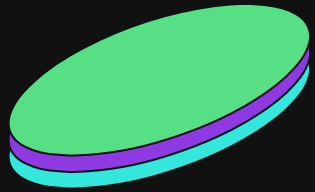
Everyone’s GitHub starts empty

Your Turn!

1. Create a GitHub account
2. Create one repo
3. Edit the README
4. Make one commit

Try Next:

- Upload a class project
- Add a second commit
- Explore someone else’s repo

You’re Officially a GitHub User!

Questions?