CoGrammar

Welcome to this session:
Git and Github

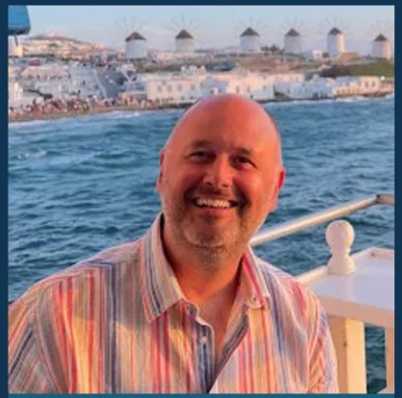
The session will start shortly...

Questions? Drop them in the chat.
We'll have dedicated moderators answering questions.

Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:



Ian Wyles
Designated Safeguarding Lead

Simone Botes

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Scan to report a safeguarding concern

or email the Designated Safeguarding Lead:
Ian Wyles
safeguarding@hyperiondev.com

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- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

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- For all **non-academic questions**, please submit a query: ***www.hyperiondev.com/support***
- **Report a safeguarding incident: *www.hyperiondev.com/safeguardreporting***
- We would love your feedback on lectures: *Feedback on Lectures*
- If you are hearing impaired, please kindly use your computer's function through Google chrome to enable captions.

Which of the following best describes Git?

A. A cloud-based repository hosting service
B. A version control system that tracks changes in code
C. A programming language
D. A tool used only for team collaboration

What command is used to send local commits to a remote GitHub repository?

A. git commit
B. git push
C. git merge
D. git clone

Learning Outcomes

- Define key Git and GitHub terminology (e.g., repository, commit, branch, merge).
- Explain the purpose and benefits of version control and collaborative development.
- Use Git commands to manage a local repository.

Introduction to Git and Github

- **What is Git?**
  - Git is a distributed version control system
  - Tracks changes in files over time
  - Helps in collaboration and code management
  - Works locally, allowing offline development

Introduction to Git and Github

- **What is Github?**
  - A cloud-based Git repository hosting service
  - Enables collaboration and remote storage
  - Provides issue tracking, pull requests, and CI/CD integration

Git vs Github

📌 **Git vs. GitHub:**

- Git is the tool; GitHub is the platform
- Git works locally; GitHub stores repositories online

Key Git Commands

- 🖥️ Basic Commands:
  - git init – Initialize a repository
  - git clone <repo> – Copy a remote repository
  - git add <file> – Stage changes
  - git commit -m "message" – Save changes
  - git push – Upload commits to GitHub
  - git pull – Fetch and merge updates

Branching vs Merging

- Branches allow independent development
- Merging integrates changes
- Common Commands:
  - git branch <name> – Create a new branch
  - git checkout <name> – Switch branches
  - git merge <branch> – Merge a branch into the current one

Collaboration with Github

- Working as a Team:
- Forking repositories
- Creating & reviewing pull requests
- Managing issues and discussions

Workflow Example

Workflow Example:

1. Fork a repository
2. Create a new branch
3. Make changes & commit
4. Push and create a pull request
5. Review, merge, and delete branch

Why do developers use branches in Git?

A. To organize different projects in the same repository.
B. To work on features separately without affecting the main code.
C. To permanently store all previous versions of a file.
D. To automatically sync changes between multiple repositories.

Questions and Answers

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Thank you for attending

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