



# Welcome to this **Co**Grammar Lecture: The Terminal & Version Control

The session will start shortly...

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



# Data Science Session Housekeeping

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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** throughout this session, should you wish to ask any follow-up questions.
- 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](#)

## Data Science Session Housekeeping cont.

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- For all **non-academic questions**, please submit a query: [www.hyperiondev.com/support](https://www.hyperiondev.com/support)
- Report a **safeguarding** incident: [www.hyperiondev.com/safeguardreporting](https://www.hyperiondev.com/safeguardreporting)
- We would love your **feedback** on lectures: [Feedback on Lectures](#)

# Enhancing Accessibility: Activate Browser Captions

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## Why Enable Browser Captions?

- Captions provide **real-time text for spoken content**, ensuring inclusivity.
- Ideal for individuals in noisy or quiet environments or for those with **hearing impairments**.

## How to Activate Captions:

### 1. YouTube or Video Players:

- Look for the CC (Closed Captions) icon and click to enable.

### 2. Browser Settings:

- Google Chrome: Go to *Settings > Accessibility > Live Captions* and toggle ON.
- Edge: Enable captions in *Settings > Accessibility*.

# 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



Nurhaan Snyman



Rafiq Manan



Ronald Munodawafa



Tevin Pitts

Scan to report a  
safeguarding concern



or email the Designated  
Safeguarding Lead:  
Ian Wyles

[safeguarding@hyperiondev.com](mailto:safeguarding@hyperiondev.com)



**SKILLS  
FOR LIFE**

**SKILLS BOOTCAMPS**



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# CoGrammar

## The Terminal & Version Control

# Learning Objectives & Outcomes

- Grasp a basic knowledge of the Terminal
- Identify the basic concepts of version control and Git.
- Explain the purpose and benefits of version control systems.
- Describe the basic commands and operations in Git.
- Initialise a Git repository.
- Stage and commit changes to a repository.

# Version Control: The "Time Machine" for Code





# Relevance

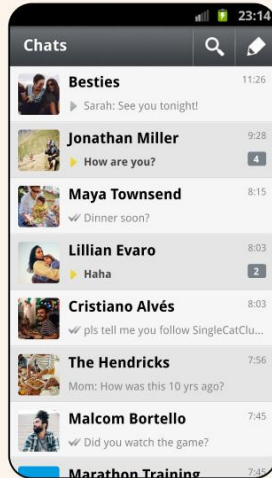
- Ever wondered how apps like Instagram and WhatsApp keep getting better without breaking?
- How do developers manage to add new features and fix bugs without chaos?
- The answer lies in a powerful tool called **Version Control**.

# Relevance

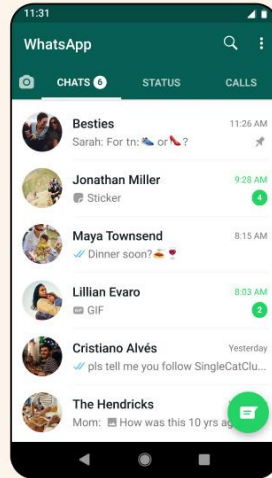
## Design over the years



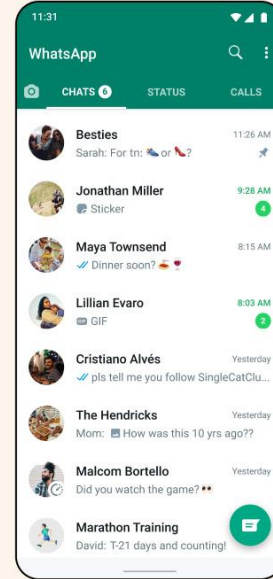
2011



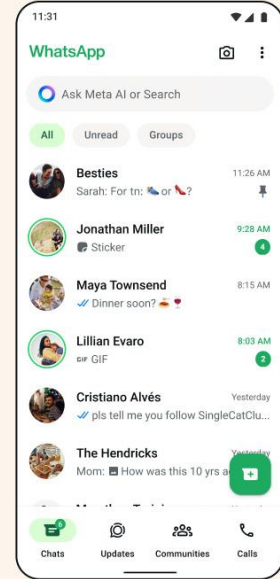
2012



2020



2021

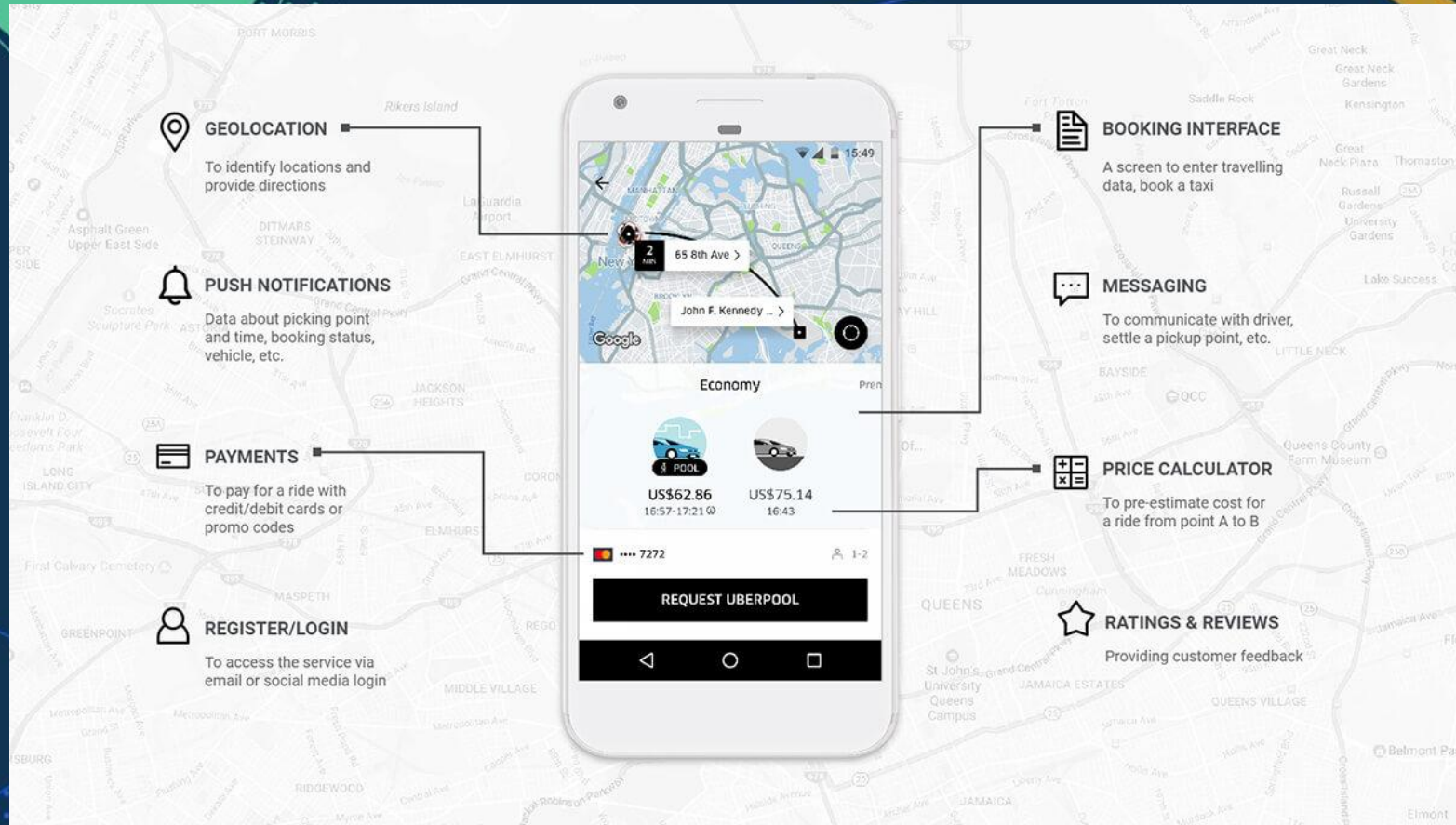


2024

# Real-World Example

- Each update you see has a team of developers behind it, each contributing their part. But how do they track who changed what? And if something goes wrong, how do they roll back to a previous version?

# Relevance



# Introduction to Version Control

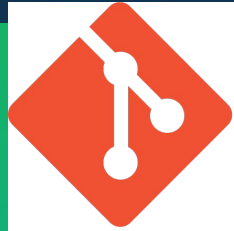
- Just as you can track changes in a **Google Doc**, developers use Version Control to manage and track code changes.



# Introduction to Git



## What is Git? Disclaimer

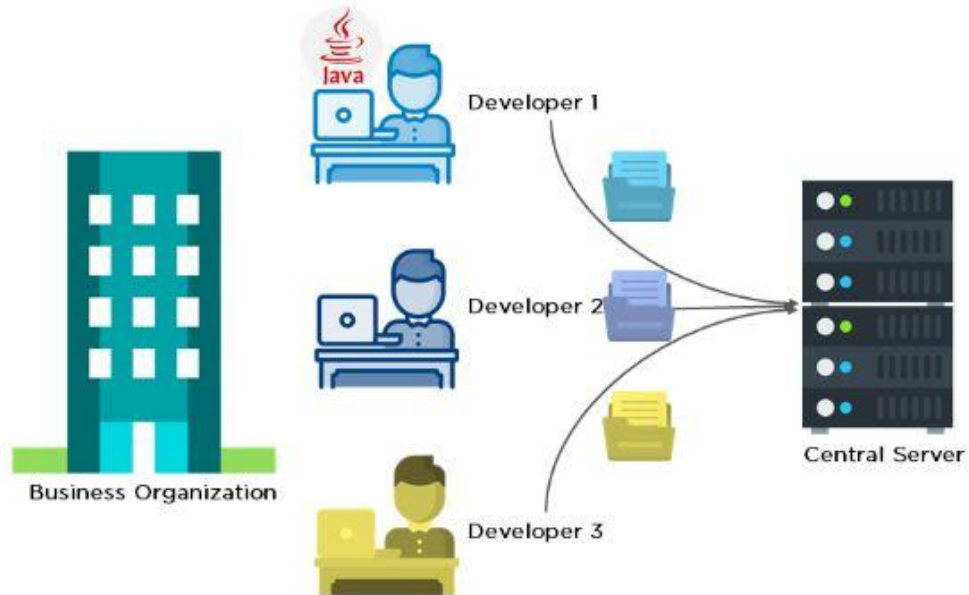


**git**

**≠**

**GitHub**

# What is Git?



# What is Git?



# What is Git?

- A powerful version control system
- Tracks changes to your code over time
- Enables collaboration with other developers
- It's a distributed system, so every developer has a full copy.



# Why Git?

- Distributed nature: Work offline and sync later
- Branching and merging: Experiment without risk
- Strong community and support

# Your Git Toolkit

- **Repository Operations:**
  - **git init:** Create a new repository
  - **git clone:** Clone an existing repository
- **Working with Changes:**
  - **git status:** Check the status of your files
  - **git diff:** View changes between commits
  - **git add:** Stage changes for commit
  - **git commit:** Commit changes to the repository
  - **git push:** Push changes to a remote repository
  - **git pull:** Pull changes from a remote repository

# Real-world Context and Conclusion



# Real-World Git: From Code to Collaboration!

- **Efficient Collaboration:** Teams work together seamlessly on shared codebases.
- **Risk Mitigation:** Backups, version history, and easy rollback.
- **Continuous Integration/Continuous Delivery (CI/CD):** Automated testing and deployment.
- **Open Source Development:** Fostering community and collaboration.

# The Big Three: Where the Magic Happens!

# GitHub



# GitLab



# Bitbucket



# Best Practices: Keep Calm and Commit On!

- **Commit Frequently:** Small, focused commits.
- **Write Clear Commit Messages:** Describe the changes made.
- **Use Branches Effectively:** Isolate features and bug fixes.
- **Review Code Regularly:** Improve code quality and collaboration.
- **Utilize Pull Requests:** A structured review process.
- **Automate Your Workflow:** Use CI/CD pipelines.

# Poll

What is a repository in version control?

1. A folder that contains only images
2. A backup drive for your computer
3. A tool for writing code
4. A storage location for your project and its version history

# Poll

What is the correct sequence of steps for saving changes in Git?

1. Commit → Add → Push
2. Push → Add → Commit
3. Commit → Push → Add
4. Add → Commit → Push

# Resources

- **Additional Resources**

- [1.5 Getting Started - Installing Git](#)
- [Pro Git book](#)

# Questions and Answers





# Thank you for attending



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