Welcome to the CoGrammar Graphs Lecture

The session will start shortly...

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

Coding Interview Workshop Housekeeping

- 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**

Coding Interview Workshop Housekeeping cont.

- 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**

Skills Bootcamp
8-Week Progression Overview

Fulfil 4 Criteria to Graduation

✅ Criterion 1: Initial Requirements

Timeframe: First 2 Weeks
Guided Learning Hours (GLH): Minimum of 15 hours
Task Completion: First four tasks

Due Date: 24 March 2024

✅ Criterion 2: Mid-Course Progress

60 Guided Learning Hours

Data Science - **13 tasks**
Software Engineering - **13 tasks**
Web Development - **13 tasks**

Due Date: 28 April 2024

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Skills Bootcamp Progression Overview

✅ Criterion 3: Course Progress

Completion: All mandatory tasks, including Build Your Brand and resubmissions by study period end
Interview Invitation: Within 4 weeks post-course
Guided Learning Hours: Minimum of 112 hours by support end date (10.5 hours average, each week)

✅ Criterion 4: Demonstrating Employability

Final Job or Apprenticeship Outcome: Document within 12 weeks post-graduation
Relevance: Progression to employment or related opportunity

Learning Objectives

- Define and illustrate the fundamental concepts of graphs, including vertices (nodes), edges, and the different types of graphs and their representations.
- Implement graph traversal algorithms in Python and JavaScript, focusing on depth-first search (DFS) and breadth-first search (BFS).
- Apply graphs to solve problems such as finding the shortest path, detecting cycles, and understanding the concepts of connectivity and graph components.

- Today’s Lecture is a repeat on the concept of Graphs but more practical.
- The theory of the concept can still be found under the listed slide in C7-Lecture Backpack
  - https://github.com/skills-cogrammar/C7-Lecture-Backpack/blob/main/5%20-%20Coding%20Interview%20Workshops/Week11/Lesson%2011_%20Graphs.pdf

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Week 15 Challenge

May 2024

Coding Challenge

- Implement an Adjacency List Graph and perform a Breadth First Search traversal algorithm on the created Graphs.
  - Create the Graph with the numbers (1,2,3,4) representing the vertices
  - Use any pattern for any vertex connection.

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Q & A SECTION

Please use this time to ask any questions relating to the topic, should you have any.

Thank you for attending

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