



CoGrammar

Week 5 - Tutorial Session I



**SKILLS
FOR LIFE**

SKILLS BOOTCAMPS



Department
for Education

Software Engineering Lecture Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly.
(FBV: Mutual Respect.)
- 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 Open Classes.
You can submit these questions here: [Open Class Questions](#)

Software Engineering Lecture 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](#)

Progression Criteria

✓ **Criterion 1: Initial Requirements**

- Complete 15 hours of Guided Learning Hours and the first four tasks within two weeks.

✓ **Criterion 2: Mid-Course Progress**

- Software Engineering: Finish 14 tasks by week 8.
- Data Science: Finish 13 tasks by week 8.

✓ **Criterion 3: Post-Course Progress**

- Complete all mandatory tasks by 24th March 2024.
- Record an Invitation to Interview within 4 weeks of course completion, or by 30th March 2024.
- Achieve 112 GLH by 24th March 2024.

✓ **Criterion 4: Employability**

- Record a Final Job Outcome within 12 weeks of graduation, or by 23rd September 2024.

Lecture Objectives

1. **VSCode Extension Walkthrough**
2. **Github Repo & Code practice websites.**
3. **Application of 2D lists to traverse and manipulate elements. (MineSweeper)**



Question:

What is a 2D list, and how does it differ from a 1D list?



Traversing

- ★ Nested Loops (iterate through rows and columns)
- ★ List comprehension

	0	1	2
0	(0,0)	(0,1)	(0,2)
1	(1,0)	(1,1)	(1,2)
2	(2,0)	(2,1)	(2,2)

Row Index

Column Index

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Questions and Answers

Wrapping Up

2D Lists

2D lists in Python offer a powerful mechanism for organising and manipulating data in a structured manner.

Rows and Columns

Rows represent individual lists within the main list, while columns denote elements within each of these lists.

Traversal

Whether it's accessing specific elements, performing operations on the entire list, or searching for particular values, traversing techniques are central to unleashing the full potential of 2D lists.



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Thank you for joining