



Welcome to this CoGrammar Tutorial: Task Walkthrough

The session will start shortly...

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



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Task Walkthrough: Handling Strings, Lists and Dictionaries

January 2025

Task Walkthrough Session 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](#)

Task Walkthrough Session 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](#)
- If you are hearing impaired, please kindly use your computer's function through Google chrome to enable captions.

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:



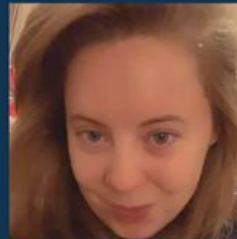
Ian Wyles
Designated Safeguarding
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Learning Outcomes

- ❖ Apply practical string manipulation techniques such as modifying characters in a string.
- ❖ Implement dictionaries and lists together to perform calculations such as calculating expected profits.
- ❖ Explain the reasoning behind each code block and apply the logic to similar tasks.

Strings, Lists and Dictionaries

- ❖ **Strings** are sequences of characters that are enclosed within single or double quotes. Common operations we perform on strings are concatenation, slicing, and formatting.
- ❖ **Lists** are mutable, ordered collections of items which can be of any type. Lists allow for indexing, slicing, appending, and more.
- ❖ **Dictionaries** are collections of key-value pairs, where each key maps to a value. Dictionaries are unordered and are accessed using keys, not indices.
- ❖ There are lots of **useful methods** we can use on strings, lists and dictionaries, such as:
 - String Methods: `split()`, `join()`, `replace()`
 - List Methods: `append()`, `pop()`, `sort()`
 - Dictionary Methods: `get()`, `keys()`, `values()`

Task Walkthrough: Auto-graded Task 1



Follow these steps:

- Create a file called **alternative.py**.
- Write a program that reads in a string and makes each alternate **character** into an uppercase character and each other alternate character a lowercase character.

E.g.: The string “Hello World” would become “HeLlO WoRlD”

- Now, try starting with the same string but making each alternative **word** lowercase and uppercase.

E.g.: The string “I am learning to code” would become “i AM learning TO code”.

Tip: Using the **split()** and **join()** functions will help.

Be sure to place files for submission inside your **task folder** and click “**Request review**” on your dashboard.

Task Walkthrough: Auto-graded Task 2



Follow these steps:

- Imagine you are running a café. Create a new Python file in your folder called **cafe.py**.
- Create a list called **menu**, which should contain at least four items sold in the café.
- Next, create a dictionary called **stock**, which should contain the stock value for each item on your menu.
- Create another dictionary called **price**, which should contain the prices for each item on your menu.
- Next, calculate the worth of the **total_stock** in the café. You will need to remember to loop through the appropriate dictionaries and lists to do this.

Tip: When you loop through the menu list, the “items” can be set as keys to access the corresponding “stock” and “price” values. Each **item_value** is calculated by multiplying the stock value by the price value. For example:

```
item_value = (stock[item] * price[item])
```

- Finally, print out the result of your calculation.

Questions and Answers



Thank you for attending



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