

What’s Going On Here?

python

Copy Edit

```
tea_types = ("Black", "Green", "Oolong")
```

This is a **tuple** — an **ordered** and **immutable** collection in Python.

✓ Accessing Elements (Indexing)

Code	Output	Explanation
tea_types[0]	'Black'	First element
tea_types[1]	'Green'	Second element
tea_types[-1]	'Oolong'	Last element (from the end)
tea_types[-2]	'Green'	Second-last element

✓ Slicing Tuples

python

Copy Edit

```
tea_types[start:stop]
```

This **includes** `start` , but **excludes** `stop` .

Code	Output	Explanation
tea_types[1:]	('Green', 'Oolong')	From index 1 to end
tea_types[1:3]	('Green', 'Oolong')	From index 1 up to (not including) 3
tea_types[1:2]	('Green',)	Only index 1 (still returns a tuple)

Code	Output	Explanation
<code>tea_types[0:2]</code>	<code>('Black', 'Green')</code>	From index 0 up to (not including) 2

✗ Trying to Change a Tuple

python

 Copy  Edit

```
tea_types[0] = "Lemon"
```

This causes:

php

 Copy  Edit

```
TypeError: 'tuple' object does not support item assignment
```

● Because tuples are immutable — you can't change them after creation.


✓ How to Change It (Workaround)

If you want to change an item, convert it to a list first:

python

 Copy  Edit

```
tea_list = list(tea_types) tea_list[0] = "Lemon" tea_types = tuple(tea_list)
print(tea_types)
```

 Output:

python

 Copy  Edit

```
('Lemon', 'Green', 'Oolong')
```

✓ Other Useful Tip

python

 Copy  Edit


```
len(tea_types)
```

This gives the **length**:

 Copy  Edit

3

Summary

Concept	Example	Result / Note
Access item	tea_types[1]	'Green'
Slice items	tea_types[1:]	('Green', 'Oolong')
Tuple immutable	tea_types[0] = "Lemon"	 Error (TypeError)
Convert to list	list(tea_types)	Allows modification
Convert back	tuple(tea_list)	Back to tuple