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Check for Understanding: Lists

Check for Understanding

Data types and data structures are tricky but important concepts to master! Let's pause and make sure you understand the distinction between them.

Quiz Question

Which of the following statements about data types and data structures are true? Select **all** that apply.

- ☐ Data structures are containers that can include different data types.
- ☐ Data structures can only hold data of the same data type.
- ☐ A list is an example of a data structure.
- ☐ All data types are data structures.
- ☐ All data structures are data types.

Quiz Question

Which of the following are properties of lists? Select **all** that apply.

- ☐ Mutable
- ☐ Immutable
- ☐ Ordered
- ☐ Unordered

The next two quizzes will test your understanding of indexing and slicing lists. I encourage you to try answering these questions without testing them in code first.

However, if you would like to experiment with code after your first try, you can use the coding space from earlier in the lesson to do so. Below is some code for easy copying and pasting:

```
arr = ['a', 'b', 'c', 'd', 'e', 'f', 'g']
```

Quiz Question

Choose the correct syntax to index each of the following elements from a list, `arr`.

Element	Indexing Syntax
First element of the list	
Fourth element of a list	
Last element of the list	
Second to last element of the list	

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Quiz Question

Choose the correct syntax to slice each of the following elements from the list: `arr = ['a', 'b', 'c', 'd', 'e', 'f', 'g']`

arr[2:5]

arr[2:6]

arr[:3]

arr[4:]

arr[3:7]

arr[4:6]

arr[0:2]

arr[:2]

Elements

Slicing Syntax

<code>['c', 'd', 'e', 'f']</code>	
<code>['a', 'b', 'c']</code>	
<code>['e', 'f', 'g']</code>	

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