Check for Understanding: Data Structures

Check for Understanding

Let's pause again to do a quick check for understanding.

Quiz Question

Which of the following statements about tuples are true? Select **all** that apply.

☐ A tuple is a mutable data structure.

☑ A tuple is an ordered data structure. ✓

☑ A tuple can be indexed and sliced like a list. ✓

☐ A tuple is defined by listing a sequence of elements separated by commas and contained within curly braces: `{}`

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Quiz Question

Which of the following statements about sets are true? Select **all** that apply.

☐ A set is a mutable data structure.

☐ A set is an ordered data structure.

☐ A set can be indexed and sliced like a list.

☐ A set does not contain duplicate elements.

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Quiz Question

Is the following statement true or false?

A set is the only data structure defined with curly braces: `{}`

○ True

○ False

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Quiz Question

Which of the following statements about dictionaries are true? Select **all** that apply.

☐ A dictionary is a mutable data structure.

☐ A dictionary is an ordered data structure.

☐ A dictionary can be indexed using keys.

☐ The keys of a dictionary are unique.

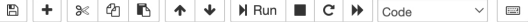☐ Any data type can be used as a key in a dictionary.

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Quiz: Identify the Problem

Run the code below - it should break. Take a look at the error message and try to figure out what the issue is. Then, answer the quiz question below the editor.

jupyter **dictionary_keys** Last Checkpoint: 10/17/2022 (autosaved)

| File | Edit | View | Insert | Cell | Kernel | Widgets | Help | | Not Trusted | Python 3 ○ |

Code

```python
In [ ]:  # invalid dictionary — this should break
         room_numbers = {
             ['Freddie', 'Jen']: 403,
             ['Ned', 'Keith']: 391,
             ['Kristin', 'Jazzmyne']: 411,
             ['Eugene', 'Zach']: 395
         }
```

ⓘ Menu   ↗ Expand

Quiz Question

What's wrong with the code above?

○ The dictionary can not use a container for its keys

○ The dictionary is using a mutable datatype for its keys

○ There are too many values in each dictionary key

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