More on Dictionaries

CSE 1310 – Introduction to Computers and Programming
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Legal Keys

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  - Cannot have multiple entries for a key

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  - Cannot have multiple entries for a key
- Keys must be immutable types
  - Strings
  - Integers
  - Tuples
- Mix and match is okay

Nesting Dictionaries

- A dictionary with dictionaries as values

```
my_dict = {123: {'name': 'John',
                 'age': 50},
           456: {'name': 'Mary',
                 'age': 30}}
```

  – Outer dictionary brackets?

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my_dict = {123: {'name': 'John',
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- Inner dictionary values

Accessing Nested Dictionaries

```
my_dict = {123: {'name': 'John',
                 'age': 50},
           456: {'name': 'Mary',
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```

How do you access 'John'?

Accessing Nested Dictionaries

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my_dict = {123: {'name': 'John',
                 'age': 50},
           456: {'name': 'Mary',
                 'age': 30}}
```

How do you access 'John'?

```
my_dict[123]['name']
```

Accessing Nested Dictionaries

```
my_dict = {123: {'name': 'John',
                 'age': 50},
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                 'age': 30}}
```

How do you access 'John'?

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my_dict[123]['name']
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Accessing Nested Dictionaries

```
my_dict = {123: {'name': 'John',
                 'age': 50},
           456: {'name': 'Mary',
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```

How do you access 'John'?

my_dict[123]['name']

Looping and Dictionaries

```
my_dict = {123: {'name': 'John',
                 'age': 50},
           456: {'name': 'Mary',
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for item in my_dict:
    ...
```

What is item?

Looping and Dictionaries

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my_dict = {123: {'name': 'John',
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What is item? A key.

How do we access the name value?

Looping and Dictionaries

```
my_dict = {123: {'name': 'John',
                 'age': 50},
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for item in my_dict:
    name = my_dict[item]['name']
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How do access the name value?

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for key1 in my_dict:
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```

What about looping through 'name' and 'age'?

Looping and Dictionaries

```
my_dict = {123: {'name': 'John',
                 'age': 50},
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                 'age': 30}}
for key1 in my_dict:
    for key2 in my_dict[key1]:
        print my_dict[key1][key2]
```

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