



Dictionaries

Lesson Outcomes:

1. Know what a dictionary is and what key: value pairs are
2. Know how to access values in a dictionary by key
3. Know how to create an empty dictionary
4. Know how to add new values to a dictionary
5. Know what a dictionary's length is and how to get it using `len()`
6. Know how to reassign values to keys in a dictionary
7. Know how to use `del` to remove key: value pairs from a dictionary

What is a dictionary?

```
# dictionaryForm = {key1: value1, key2: value2, etc}  
states = {42: "Washington", 50: "Hawaii", 1: "Delaware"}  
  
# prints Washington  
print(states[42])  
  
# prints Hawaii  
print(states[50])  
  
# prints Delaware  
print(states[1])
```

Empty Dictionaries, Adding to Dictionaries, and Length of a Dictionary

```
# empty dictionary
```

```
Dict = {}
```

```
# adds the key 30 and its value "Wisconsin"
```

```
# to the dictionary Dict
```

```
Dict[30] = "Wisconsin"
```

```
# adds the key 21 and its value "Illinois"
```

```
# to the dictionary Dict
```

```
Dict[21] = "Illinois"
```

```
# lenOfDict is assigned the length of Dict.
```

```
lenOfDict = len(Dict) # lenOfDict = 2
```

Reassignment By Key

```
# example dictionary
```

```
moreStates = {10: "Virginia", 15: "Kentucky", 48: "New Mexico"}
```

```
# prints New Mexico
```

```
print(moreStates[48])
```

```
# reassigns the key 48 the value Arizona
```

```
moreStates[48] = "Arizona"
```

```
# prints Arizona
```

```
print(moreStates[48])
```

Removing Key: Value Pairs With Del

```
evenMoreStates = {3: "New Jersey", 17: "Ohio", 19: "Indiana"}
```

```
# removes the key: value pair 17: "Ohio" from evenMoreStates
```

```
del evenMoreStates[17]
```

```
# prints {19: 'Indiana', 3: 'New Jersey'}
```

```
print(evenMoreStates)
```

Recap

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What's Next?