



Dictionaries

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Dictionaries

A dictionary is a data structure that consists of key-value pairs.

With lists, each element of the list is referenced using an integer with the sequence of integers beginning at 0.

With dictionaries, the values are referenced using the key, with the key chosen by the programmer.

Dictionaries

Dictionaries are created by enclosing a comma-separated list of key-values pairs inside a set of curly braces, i.e., { }.

Key-value pairs are created by writing a key, which must be unique, followed by a colon followed by the value.

Example:

```
addresses = { "Joseph" : "123 Main St." }
```

Example

```
# key = ID number, value = name
dataDict = { 123 : "Darin",
             456 : "Susan",
             789 : "Bob" }
```

```
print dataDict
print dataDict[123]
dataDict[456] = "Mary"
print dataDict
```

produces

```
{456: 'Susan', 123: 'Darin', 789: 'Bob' }
```

```
Darin
```

```
{456: 'Mary', 123: 'Darin', 789: 'Bob' }
```

Methods and Functions

Some useful dictionary methods are:

- `len()` – returns number of dictionary elements
- `del` – delete a key-value pair
- `items()` – return all key-value pairs
- `keys()` – return list of all keys
- `values()` – return list of all values