

# DSE5002 MODULE 5 LAB

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From Think Python, Chapter 10,

10.11.2, 10.11.4

In [3]: **10.11.2.** Exercise  
Use `get` to write a more concise version of `value_counts`. You should be able to elim

```
In [3]: def value_counts_concise(s):
        counts = {}
        for char in s:
            counts[char] = counts.get(char, 0) + 1
        return counts

# Let's test it out
result = value_counts_concise('brontosaurus')
print(result)
```

{'b': 1, 'r': 2, 'o': 2, 'n': 1, 't': 1, 's': 2, 'a': 1, 'u': 2}

In [ ]: Exercise **10.11.4**  
**10.11.4.** Exercise  
Write function called `find_repeats` that takes a dictionary that maps **from** each key

```
In [5]: def find_repeats(counter):
        """Makes a list of keys with values greater than 1.
        counter: dictionary that maps from keys to counts
        returns: list of keys
        """
        repeated_keys = []
        for key, count in counter.items():
            if count > 1:
                repeated_keys.append(key)
        return repeated_keys

# Let's test it with the output from our value_counts function
word_counts = value_counts_concise('brontosaurus')
repeated = find_repeats(word_counts)
print(f"Counts of each letter: {word_counts}")
print(f"Letters that appear more than once: {repeated}")
```

Counts of each letter: {'b': 1, 'r': 2, 'o': 2, 'n': 1, 't': 1, 's': 2, 'a': 1, 'u': 2}

Letters that appear more than once: ['r', 'o', 's', 'u']

In [ ]: