

1. What does an empty dictionary's code look like?

To create an empty dictionary we should type: `d = dict()` or `d = {}`

2. What is the value of a dictionary value with the key 'foo' and the value 42?

To create a dictionary with key value 'foo' and corresponding value 42 we should type: `d{'foo':42}`

3. What is the most significant distinction between a dictionary and a list?

A dictionary is a mutable key-value structure which does not allow duplicates. It is defined by using curly brackets .

A list is a mutable object which allows duplicates. It is defined by using square brackets.

4. What happens if you try to access `spam['foo']` if `spam` is `{'bar': 100}`?

It will be raised a `Keyerror`.

5. If a dictionary is stored in `spam`, what is the difference between the expressions 'cat' in `spam` and 'cat' in `spam.keys()`?

I'm not sure I properly got the question:

If `spam` is a dictionary, let's say : `spam = {'cat':'egory'}`, in both cases whether I type either : 'cat' in `spam.keys()` or 'cat' in `spam`, it returns `True`, since they check whether 'cat' exists as a key of `spam`.

6. If a dictionary is stored in `spam`, what is the difference between the expressions 'cat' in `spam` and 'cat' in `spam.values()`?

Using the above example, the first line of code checks whether 'cat' exists as a key, the second checks whether 'cat' exists as a value.

7. What is a shortcut for the following code?

if 'color' not in `spam`:

`spam['color'] = 'black'`

`spam.setdefault('color','black')`

8. How do you "pretty print" dictionary values using which module and function?

Pretty print is a module used to make complex structures, such as nested lists or dictionaries, more readable. We can use `pprint` after importing `pprint`:

`import pprint`

`pprint.pprint(dictionary)`