10/11/13 Nested Lists

## **Nested Lists**

Lists can contain items of any type, including other lists. These are called *nested lists*.

Here is an example.

```
>>> grades = [['Assignment 1', 80], ['Assignment 2', 90], ['Assignment 3', 70]]
>>> grades[0]
['Assignment 1', 80]
>>> grades[1]
['Assignment 2', 90]
>>> grades[2]
['Assignment 3', 70]
```

To access a nested item, first select the sublist, and then treat the result as a regular list.

For example, to access 'Assignment 1', we can first get the sublist and then use it as we would a regular list:

```
>>> sublist = grades[0]
>>> sublist
['Assignment 1', 80]
>>> sublist[0]
'Assignment 1'
>>> sublist[1]
80
```

Both sublist and grades[0] contain the memory address of the ['Assignment 1', 80] nested list.

We can access the items inside the nested lists like this:

```
>>> grades[0][0]
'Assignment 1'
>>> grades[0][1]
80
>>> grades[1][0]
'Assignment 2'
>>> grades[1][1]
90
>>> grades[2][0]
'Assignment 3'
>>> grades[2][1]
70
```

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