

The Zen of Python

import this.

Some good practices:

1. Clean up your code — get rid of unnecessary lines of code.
 2. Comments:
 - At the top — heading — author
 - Throughout — to explain.
 3. Descriptive variable names.
-

Python Lists.

A list is a collection of items in a certain order.

[] indicates a list in Python

```
classes = ["Python", "Calculus", "Writing"]
```

 ↑ ↑ ↑
 0 1 2

```
print(classes[0])
```

→ start counting at zero.

Python.

```
print(classes[-1])
```

→ negative indexing goes backward from the end.

Writing

Once you have defined a list then you can change, add, or subtract elements.

Change / Modify Elements:

```
classes[0] = "History"
```

— we are changing the first item of the list.

```
now print(classes)
```

```
["History", "Calculus", "Writing"]
```

What does this do:

```
classes[-1] = "Philosophy"
```

Add New Elements:

```
classes.append("Physics")
```

adds to the end.

```
now print(classes)
```

```
["History", "Calculus", "Philosophy", "Physics"]
```

```
classes.insert(0, "Painting")
```

adds the ~~new~~ item to the 0th spot

↑
location in list

↑
thing you want to add

Remove Items in List:

del just deletes the element.

```
del classes[0]
```

→ deletes the first thing in the list

```
last_element = classes.pop()
```

→ removes the last element

pop removes the element but lets you keep working with it.

but we can save the data if we want.

- OR -

```
second_element = classes.pop(1)
```

→ removes the second element

`classes.remove("Calculus")` would remove the element matching "Calculus" from the list no matter where it is.
ONLY THE FIRST OCCURANCE.

Organizing a list. `classes = ["Painting", "Physics", "History"]`

PERMANENT SORT:

`classes.sort()`

→ changes to alphabetical order

`classes.sort(reverse=True)`

→ changes to reverse alphabet order.

TEMPORARY SORT:

~~`classes.sort()`~~
`print(sorted(classes))`

→ displays the items as sorted but does not change the list

REVERSE THE ORDER:

`classes.reverse()`

How long is my list? `len(classes)`