

4/1/2025 Class Notes

Intro to the Linux Terminal

Some Commands: **cd** (change directory) **ls** (list contents of a directory) **mkdir** new_folder (make a directory named new_folder) **touch my_file.txt** (make a file names my_file.txt)

cd Desktop (moves you into the desktop from your home folder)

cd Desktop/new_folder (moves you into the new_folder directory on your Desktop)

python3 -m jupyterlab (Opens Jupyter Lab)

```
In [1]: x = 5
        y = 6
        x + y
```

```
Out[1]: 11
```

```
In [2]: X + y
```

```
-----
NameError                                Traceback (most recent call l
ast)
Cell In[2], line 1
----> 1 X + y

NameError: name 'X' is not defined
```

Below Python is doing an implicit conversion and representing both numbers as the binary value 101 except you cannot ask python to explicitly convert between a float and a binary

```
In [3]: y = 5.0
        x == y
```

```
Out[3]: True
```

```
In [9]: print(bin(5.0))
        print(bin(5))
```

```
-----  
-----  
TypeError                                Traceback (most recent call l  
ast)  
Cell In[9], line 1  
----> 1 print(bin(5.0))  
      2 print(bin(5))  
  
TypeError: 'float' object cannot be interpreted as an integer
```

Hot take: Floats are not integers and integers aren't floats. Do not think that they are equal even though python will evaluate `5 == 5.0` ? as True

```
In [4]: x == '5'
```

```
Out[4]: False
```

```
In [5]: 5 == 5.0
```

```
Out[5]: True
```

```
In [6]: name = "Denise"
```

```
In [7]: print(name)
```

```
Denise
```

```
In [2]: "Denise" == "denise"
```

```
Out[2]: False
```

```
In [4]: bears = ['one', 'two']
```

```
In [5]: bears[1.0]
```

```
-----  
-----  
TypeError                                Traceback (most recent call l  
ast)  
Cell In[5], line 1  
----> 1 bears[1.0]  
  
TypeError: list indices must be integers or slices, not float
```

```
In [6]: bears[1]
```

```
Out[6]: 'two'
```

```
In [7]: 0.1 + 0.2 == 0.3
```

```
Out[7]: False
```

```
In [8]: print(0.1 + 0.2)
```

0.30000000000000004