Python Basics for Data Science

Module 3: Python Programming Fundamentals

Operators/Keywords/Statements	Description	Example

==, !=, >, <, >=, <=	Comparison operators. Return a Boolean.	a = 5
		#b is false
		b=a==6

if <comparison>:
 <code runs when comparison is true>
	Runs code based on true evaluation of the if argument.	#expression that can be true or false
		if age > 18:
		#within an indent, we have the
		#expression that is run if the condition is #true
		    print("you can enter")
		#The statements after the if statement will #run regardless if the condition is true or #false
		print("move on")

if <comparison>:
 <code that runs when comparison is true>
else:
 <code that runs when comparison is false>
	Runs code based on evaluation of the if argument. If the argument is false runs the code that follows the else statement.	# if=else statement example
		weather = "sunny"
		# weather = "cloudy"
		if weather == "sunny":
		    print("The sun is out today")
		else:
		    print("Looks like it might rain")

elif	Similar to else if but allows for else if statements as well.	# If-elif statement example
		age = 18
		if age > 18:
		    print("you can enter")
		elif age == 18:
		    print("go see Pink Floyd")
		else:
		    print("go see Meat Loaf")

for loop	Continue to do something while iterating through a list.	dates = [1982,1980,1973] for year in dates: print(year)

while loop

Continue to do something as long as while statement is true.

```python
# While Loop Example
dates = [1982, 1980, 1973, 2000]
i = 0
year = dates[0]
while year != 1973:
    print(year)
    i = i + 1
    year = dates[i]
print("It took ", i ,"repetitions to get out of loop.")
```