

	PYTHON	JAVASCRIPT
1. for __ in <u>sequence</u> :	__ = iterator variable can be named anything (only accessible in this block scope) __ iterator variable refers to ELEMENT in sequence (list, string)	__ = iterator variable can be named anything (only accessible in this block scope) __ iterator variable refers to stringified INDEX in iterable (array, string)
	Ex. letters = ["a", "b", "c"] for char in letters: print(char) # "a", "b", "c"	Ex. let letters = ["a", "b", "c"]; for (let char in letters) { console.log(char); // "0", "1", "2" }
2. for __ in <u>dictionary</u>:	__ iterator variable refers to KEY in dictionary - order of key/values in loop not guaranteed!	__ iterator variable refers to KEY in object - order of key/values in loop not guaranteed!
	Ex. pantry = { "apple": 2, "mango":1, "pear: 3 } for fruit in pantry: print(fruit) # "mango", "pear", "apple"	Ex. let pantry = { "apple": 2, "mango":1, "pear: 3 }; for (let key in pantry) { console.log(key); // "apple", "mango", "pear" }
3. range(<i>start</i>, <i>stop</i>, <i>step</i>)	params: - start (int) = optional number where to start list, default 0 - stop (int) = required number where to end list (exclusive) - step (int) = optional number how to increment list, default 1 returns (list) python v2 returns (range) python v3 - less memory Ex1. default step 1 x = range(3, 6) print(x) # [3, 4, 5] Ex2. custom step 2 x = range(3, 6, 2) print(x) # [3, 5] Ex3. only 1 param- end x = range(4) print(x) # [0, 1, 2, 3] Ex4. negative param end x = range(-3) print(x) # [] Ex5. descending numbers x = range(3, -1, -1) print(x) # [3, 2, 1, 0]	

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4. for <code>__</code> in <code>range(start, stop)</code> :	can use this loop to create C++ or JS style for loops. Ex. <code>for (int i = 0; i < 9; i++) {}</code>	Ex1. loop 4 times from 0 to 3 (inclusive) in steps of 1
	Ex1. loop 4 times from 0 to 3 (inclusive) in steps of 1	<code>for (let i = 0; i < 4; i++) {</code>
	<code>for i in range(0, 4):</code>	<code> console.log(i); // 0, 1, 2, 3</code>
	<code> print(i) # 0, 1, 2, 3</code>	<code>}</code>
5. WHILE Loop	Ex1. loop 4 times from 0 to 3 (inclusive) in steps of 1	Ex1. loop 4 times from 0 to 3 (inclusive) in steps of 1
	<code>i = 0</code>	<code>let i = 0;</code>
	<code>while i < 4:</code>	<code>while (i < 4) {</code>
	<code> print(i) # 0, 1, 2, 3</code>	<code> console.log(i); // 0, 1, 2, 3</code>
	<code> i += 1</code>	<code> i++;</code>
		<code>}</code>
6. <code>open()</code>	<code>open(file, mode) #=> file obj</code>	
	- file (string) = path relative or absolute	
	- mode (string) = optional, default "r" read	
	- other modes: "w" write, "a" append, "x" create	
	- file obj = doesn't have actual file contents, but acts like a placeholder to file contents	
	Ex.	
	<code>f = open("stock_prices.csv", "r")</code>	
7. <code>file.read()</code>	<code>file.read(n) #=> str</code>	
	- file (obj) = file object created from <code>open()</code>	
	- n (int) = optional, refers to number of characters or bytes to read from file, if blank, default entire file	
	- str (string) = entire file as a string, usually separated by "ln" for csv files	
8. <code>string.split()</code>	<code>string.split(delimiter) #=> list</code>	same as python, except see example 4 below
	- delimiter (string) = optional what you want to separate each string with. ex " , " or "ln". default is whitespace	
	- list = list of values separated by the delimiter	
	Ex1. delimiter included	Ex1. delimiter included
	<code>str = "a,b,c"</code>	<code>let str = "a,b,c";</code>
	<code>str.split(",") #=> ["a", "b", "c"]</code>	<code>str.split(",") //=> ["a", "b", "c"]</code>
	Ex2. no delimiter	Ex2. no delimiter
	<code>str = "a,b,c"</code>	<code>str = "a,b,c"</code>
	<code>str.split() #=> ["a,b,c"]</code>	<code>str.split() //=> ["a,b,c"]</code>
	Ex3. delimiter not found	Ex3. delimiter not found
	<code>str = "a,b,c"</code>	<code>str = "a,b,c"</code>
	<code>str.split("#") #=> ["a,b,c"]</code>	<code>str.split("#") //=> ["a,b,c"]</code>
	Ex4. empty string delimiter- ValueError!!!	Ex4. empty string delimiter- NO ERROR!
	<code>str = "a,b,c"</code>	<code>str = "a,b,c"</code>
	<code>str.split("") #=> ValueError!!!!!!</code>	<code>str.split("") //=> ['a', ',', 'b', ',', 'c']</code>