

Lecture 6: Assignment

Function + Variables in Symbol tables:

```
6 def convertFtoC(temp):
7     convertedTemp = (5/9)*(temp - 32)
8     print(temp, 'degrees in F is', convertedTemp, 'degrees in C.')
9
10
11 # Main code
12 tempInF1 = 32
13 convertFtoC(tempInF1)
14
15 tempInF2 = 212
16 convertFtoC(tempInF2)
```

Main		
Name	type	Value
convertFtoC	fun	→
tempInF1	int	32

Connection to function
Symbol table
(When it is made)

13: 4 step process

- Convert F to C (~~tempInF1~~)
- Make Symbol table for function.
- Add entries to function Symbol table for its parameters (variables)
- Copy associated values from main table

Convert F to C		
Name	type	Value
temp	int	32

7: Do operations on right hand side, Simplify to Single Value.

→ Add entry in Symbol table for new variable on left.

Convert F to C		
<u>Name</u>	<u>type</u>	<u>value</u>
temp	int	32
convertstemp	float	0.0

8: print

13: Go back to 13. Function Symbol table goes away!

↓ left with main table:

Main		
<u>Name</u>	<u>type</u>	<u>Value</u>
convert F to C	fun	→
tempIn F1	int	32
tempFn F2	int	212

Convert F to C		
<u>Name</u>	<u>type</u>	<u>value</u>
temp	int	32
convertstemp	float	0.0

bye bye!

15: Add Variable to main table]

16: 4 step process

212

- Convert F to C (~~temp~~ In F2)
- Make Symbol table for function.
- Add entries to function Symbol table for its parameters (variables)
- Copy associated values from main table

⋮

Convert F to C

<u>Name</u>	<u>type</u>	<u>value</u>
temp	int	212

Lecture 7

Modules in symbol tables:

Main.py

1 import turtle

Main		
<u>Name</u>	<u>Type</u>	<u>Value</u>
turtle	module	→

• = connection between tables

turtle		
<u>Name</u>	<u>Type</u>	<u>Value</u>
Forward	fun	→
Right	fun	→
⋮	⋮	⋮

2 turtle.forward(10)

3 turtle.forward(20)

