

Lecture 6 Assignment

Previously: we added our functions to symbol table.

Variables — name, type, value also added symbol table.

main

<u>Name</u>	<u>type</u>	<u>Value</u>
a	int	1 2
b	int	2 9

1. a = 1

2. b = 2

3. a = ~~1~~
2

4. b = 9
2

5. print(~~a~~) → 2

6. print(~~b~~) → 9

Done

```

6 def convertFtoC(temp):
7     convertedTemp = (5/9)*(temp - 32) = 0 - 100
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)

```

Temp convert program Symbol table

When we call functions, they get their own Symbol table.

```

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

Convert F to C

Name	type	Value
temp	int	32

Call function: make a symbol table for it: 4 step process:

- 1) Make blank table for that function **convert F to C**
- 2) In function call [in main], replace parameters passed in [variables] with their values

Convert F to C (~~temp~~ ₃₂ in F)

- 3) Create entries in function ~~sym~~ table for all parameters.
- 4) Copy all values/types from main symbol table to function table for parameters.