



# Lecture 3

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## Tables

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# Announcements

**Python**

# Programming Languages

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- Python is popular both for data science & general software development
- Mastering the language fundamentals is critical
- Learn through practice, not by reading or listening
- Follow along: [summer.datahub.berkeley.edu](https://summer.datahub.berkeley.edu)

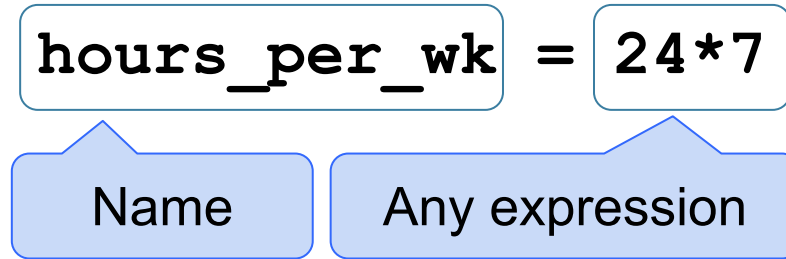
(Demo)

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**Names**

# Assignment Statements

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- Statements don't have a value; they perform an action
- An assignment statement changes the meaning of the name to the left of the = symbol
- The name is bound to a value (not an equation)

(Demo)

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# Call Expressions

# Anatomy of a Call Expression

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What  
function  
to call

Argument to the  
function

f (27)

"Call f on 27."

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# Anatomy of a Call Expression

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What  
function  
to call

First argument

Second  
argument

`max` (`15`, `27`)

(Demo)

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# Tables

# Table Structure

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- A Table is a sequence of labeled columns
- Each row represents one individual
- Data within a column represents one attribute of the individuals

Name	Code	Area (m2)
California	CA	163696
Nevada	NV	110567

(Demo)

# Some Table Operations

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- `t.select(label)` - constructs a new table with just the specified columns
  - `t.drop(label)` - constructs a new table in which the specified columns are omitted
  - `t.sort(label)` - constructs a new table with rows sorted by the specified column
  - `t.where(label, condition)` - constructs a new table with just the rows that match the condition
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# Discussion Question

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`nba` table:

How to display just the row corresponding to the player who had the highest salary?

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