



INF 110 Discovering Informatics

More Tables

Table Properties

A property is a fact or detail about an object; you don't use parenthesis to access properties

- `t.num_columns`
- `t.num_rows`
- `t.labels`

Live Code Roster Data Set

Task: Load the roster data set and find the number of columns, rows, and the table labels.

Learning Outcomes

- Using object properties
- Reading and using tables

Working with Columns

- `t.relabeled('old name', 'new name')`
- `t.column('column name')`
- `t.column(column_number)`
- `t.with_column('column name', numpy_array)`
- `t.select (column1, column2, etc..)`
- `t.drop(column1, column2, etc..)`

Live Code Roster Data Set Part 2

Task: Try using the column manipulation methods on the roster data set.

Learning Outcomes

- Using object methods
- Using column methods
- Working with tables

Sorting

- `t.show(number)`
- `t.sort(column_name)`
- `t.sort(column_name, descending=True)`

Live Code Salary Data Set

Task: Sort the federal employee data set by salary.

Learning Outcomes

- Sorting (forward and backward)
- Showing a subset of data results

Working with Rows

- `t.take(index_or_sequence)`
- `t.where(column_name, condition)`

Selection Conditions

"are" is a special object in the datascience module

- `are.above(value)`
- `are.equal_to(value)`
- `are.not_equal_to(value)`
- `are.between(value1, value2)`
- `are.below(value)`
- `are.containing(value)`

Live Code Salary Data Set 2

Tasks:

Find the top 5 salaries among medical officers

Find the bottom 5 salaries among Maryland workers

Find the salaries between \$295,000 and \$300,000

Learning Outcomes

- Using "take" to examine specific values in a sequence
- Using "where" to select values based on criteria

Live Code Population Statistics

Tasks:

Using <http://www2.census.gov/programs-surveys/popest/datasets/2010-2015/national/asrh/nc-est2015-agesex-res.csv>

- Find the difference between 2010 and 2014
- Find the % change between 2010 and 2014

Learning Outcomes

- Using "where" to select values based on criteria
- Creating new columns

end