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Session 2

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Lists

- A comma separated set of objects, denoted by square brackets
- [object 1, object 2, …]

- Can contain mixed types of objects
- my_list = [“cat”, 12, 3.14]

- Lists are indexed
- my_list[1] is 12

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Lists

- Lists are mutable

  my_list[1] = 15

  my_list [“cat”, 15, 3.14]

- Built-in methods for lists
  - Append, Pop, Sort, etc.

- Lists can be nested

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Dictionaries

- Identified by curly brackets { }
- Use key-value pairs

  My_dictionary = { “car” : ”honda”)

  key value
- Dictionaries indexed by keys
- Dictionaries have no order, can’t be sorted
- Can’t have a key without a value, nor value without a key
- Dictionaries can be nested

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Dictionaries

- Dictionaries have some built in methods
  - Keys()
  - Values()

- Unpacking a dictionary
  - Items()
  - Creates a list of tuples

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Tuples

- Similar to lists, but immutable
- Format uses parenthesis

  my_tuple = (1, 2, 3, 4)
- Indexable
- Fewer methods available than lists
- Good for when passing data around and you don't want to take a chance it gets changed

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Sets

- Unordered collection of unique elements
- Each item can be represented only once
- Notated by curly braces

  my_set = { item1, item2, item3 }
- A few methods are available for sets
- Can cast a string to a set- set(string)
- Can cast a list to a set- set(list)
- Removes duplicate items

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None

- Can be used as a placeholder
- Used to define a NULL value or no value at all
- Not the same as 0 or an empty string, it is it's own datatype

  NoneType
- Is the output for in-place actions
- For example- list.sort()

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