

Python Data Structures

Code Girls 2021-22





Lists!

- Simpler Data Structures
 - Integers, floats
 - Strings
 - Boolean
- Today:
 - Lists
 - Arrays



Review!

- Simpler Data Structures
 - Integers, floats
 - Strings
 - Boolean



Lists

- Lists are used to store multiple items in a single variable.
 - They are exactly what you think they are
- Syntax:


```
List_name = []
```
- Indexes:
 - Start at 0



Lists: what can we do with them

- `append()` - Adds an element at the end of the list
- `clear()` - Removes all the elements from the list
- `copy()` - Returns a copy of the list
- `count()` - Returns the number of elements with the specified value
- `extend()` - Add the elements of a list (or any iterable), to the end of the current list
- `index()` - Returns the index of the first element with the specified value
- `insert()` - Adds an element at the specified position
- `pop()` - Removes the element at the specified position
- `remove()` - Removes the item with the specified value
- `reverse()` - Reverses the order of the list
- `sort()` - Sorts the list



Arrays

- Think lists embedded in lists



Arrays

1D Array

3	2
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2D Array

1	0	1
3	4	1

3D Array

1	7	9
5	9	3
7	9	9



Let's do some practice application!

- Make a playlist of your favorite songs!
 - Challenge: Make a top 10 list by inserting elements into indices

Replit link: <https://replit.com/@CodeGirls1/21-22-Python-Lecture-6?v=1>



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