COMP 110

Introduction to Lists

Lists

A list is a **data structure**–something that lets you reason about multiple items.

Examples of lists:

- To-do list
- Assignment Due Dates
- Grocery List

***Lists can be an arbitrary length! (Not a fixed number of items.)*

Initializing an empty list

<list name>: list[<item type>] = list()

grocery_list: list[str] = list()

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str, int, float, etc.

Adding an item to a list

<list name>.append(<item>)

grocery_list.append(“bananas”)

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grocery_list.append(“bananas”)

- Method: a function that *belongs* to the **list** class
- Like calling append(grocery_list, “bananas”)

Initializing An Already Populated List

<list name>: list[<item type>] = [<item 0>, <item 1>, … , <item n>]

grocery_list: list[str] = [“eggs”, “milk”, “bread”]

Indexing

grocery_list: list[str] = [“bananas”, “milk”, “bread”]

grocery_list[0]

***Starts at 0, like with strings!*

Modifying by Index

grocery_list: list[str] = [“bananas”, “milk”, “bread”]

grocery_list[1] = “eggs”

Length of a List

grocery_list: list[str] = [“eggs”, “milk”, “bread”]

len(grocery_list)

Remove an Item From a List

```
grocery_list: list[str] = ["eggs", "milk", "bread"]

grocery_list.pop(2)
```

Index of item you want to remove