

# Plan for Today

- We are back!
- I hope midterm went great!
- Strings + fStrings
- Files
- Dictionaries

# Strings recap

- creating
- looping

# String Functions

- `len(str)`
- `str.strip()`
- `str.find()`
- `str.islower()`
- `str.upper()`
- `str.split(..)`

# String quirks

- They are immutable!
- slicing!

# Building strings

- Use regular addition
- Use cool fstrings
  - syntax: `s = f"something* {var}* "`

**Any Questions :)**

# Files!

- Syntax: `for line in open(filename)`
- `with open(filename) as f:`
  - `for line in f:`
- Each line in the file is a string!

# Dictionaries

- Created with {} or dict()
- Stores key-value pairs
- Can be nested!

# Capstone Problem

You are given a file which is organized  
in this form:

- Metadata about file
- Name of shop: location
  - Aisle name: item
- Name of shop: location
  - Aisle name: item

...

# Capstone Problem

Organize this file into a nested dictionary that looks like:

```
{shop: {aisle: [item1, ...]}, ...}
```

# Sub Problem

Print out the top five aisles in every store.