CSE 163
CSVs and Lists of Dictionaries

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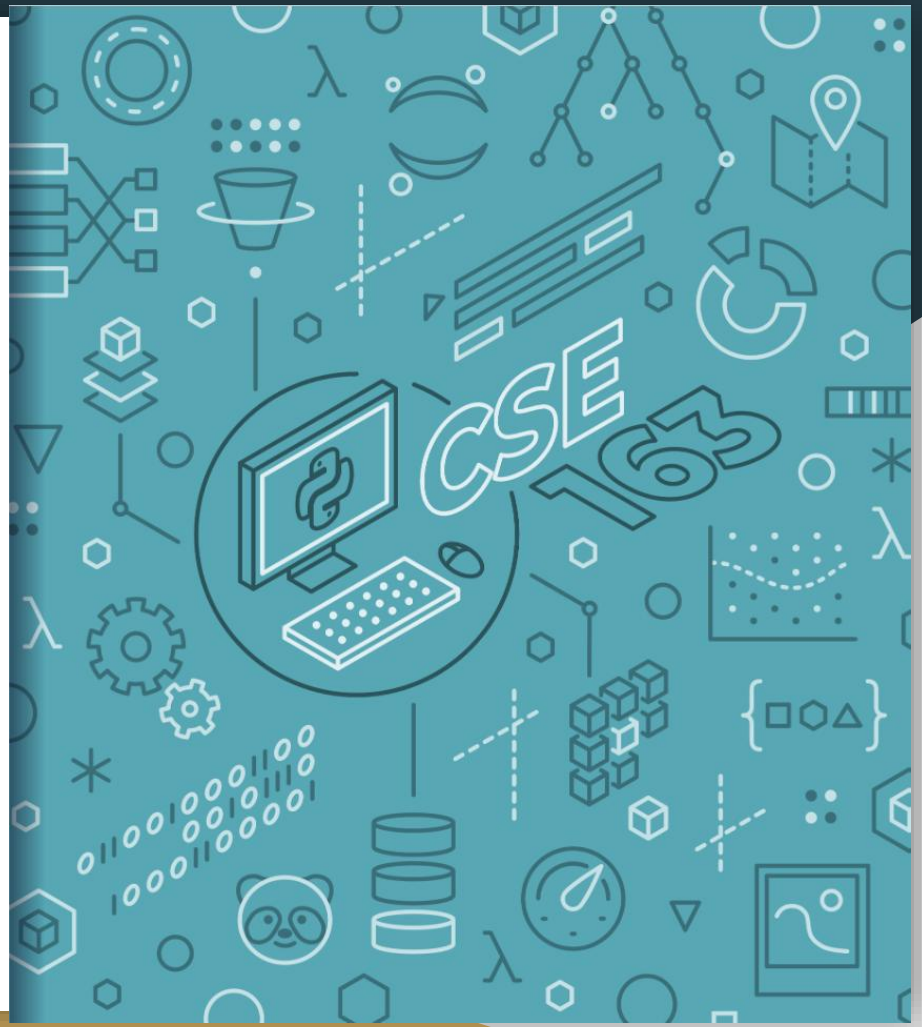
Spring 2026

💭 Icebreaker (discuss with neighbors): ‘
Who is your favorite character from any media? (movies, TV, anime, books, etc.)
Name as many as you’d like! Add to our Slido!

slido.com
#cse163



Announcements

- **Take Home Assessment 2: Networks** due Thursday, April 23rd at 11:59pm!
- **Lesson 8 Canvas Quiz** due tonight at 11:59pm!
- **Checkpoint 2** due Monday, April 20th at 11:59pm!
- **Section Assignment 3** is due tonight at 11:59pm!
- **Feedback for THA 1** will be available on Gradescope soon!
  - Please read your feedback carefully!
  - If you have any questions regarding your grade or feedback (or where to find your feedback) → make a private Ed post, go to TA or instructor office hours
  - **Resub Cycle 1** will be released later today → due Tuesday, April 21st at 11:59pm!

Lesson Recap

- ***Dictionary***
  - Key-value pairs. Keys are unique, values are not.
- ***CSV files***
  - Comma-separated values
  - Parsed as a list of dictionaries

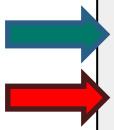
Dictionary Methods

`dict() or {}`	Makes an empty dictionary
`d[key]`	Gets the value for k, KeyError if None
`d[key] = val`	Assigns val as the value for key
`d.pop(key)`	Removes key from this dictionary
`d.keys()`	Returns a collection of the keys
`d.values()`	Returns a collection of the values
`d.items()`	Returns a collection of (key, value) tuples

Processing CSVs

- ***Well structured*** so they are easy to parse
- Not clear how to represent since we need info on rows and columns. Will have to use multiple data structures!
- We will use a ***list of dictionaries*** to store this information.

Processing CSVs

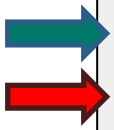


```
Name,Salary
Madrona,3
Ken,1
Ryan,3
```

```
[


]
```

Processing CSVs



```
Name,Salary
Madrona,3
Ken,1
Ryan,3
```

```
[
    {'Name': 'Madrona', 'Salary': 3},


]
```

Processing CSVs

```
Name,Salary
Madrona,3
Ken,1
Ryan,3
```

```
[
    {'Name': 'Madrona', 'Salary': 3},


]
```

Processing CSVs

```
Name,Salary
Madrona,3
Ken,1
Ryan,3
```

```
[
    {'Name': 'Madrona', 'Salary': 3},
    {'Name': 'Ken',     'Salary': 1},

]
```

Processing CSVs

```
Name,Salary
Madrona,3
Ken,1
Ryan,3
```

```
[
    {'Name': 'Madrona', 'Salary': 3},
    {'Name': 'Ken',     'Salary': 1},

]
```

Processing CSVs

```
Name,Salary
Madrona,3
Ken,1
Ryan,3
```

```
[
    {'Name': 'Madrona', 'Salary': 3},
    {'Name': 'Ken', 'Salary': 1},
    {'Name': 'Ryan', 'Salary': 3}
]
```

Processing CSVs

```
    Name,Salary
0   Madrona,3
1   Ken,1
2   Ryan,3
```

```
[
    {'Name': 'Madrona', 'Salary': 3},   0
    {'Name': 'Ken',     'Salary': 1},   1
    {'Name': 'Ryan',    'Salary': 3}    2
]
```

Be careful of the ***data types!***

```
# data is a list containing dictionaries
tas = cse163_utils.parse('tas.csv')

# tas[0] is a dictionary
madrona = tas[0]
# madrona['Salary'] is an int
madrona['Salary']

# Also works without an intermediate variable
tas[0]['Salary']

# Doesn't work! List doesn't allow string indices
tas['Salary'][0]
```

Group Work: Best Practices

- When working with a new group for the first time:
  - Introduce yourself!
  - If possible, angle one of your screens so that everyone can see and discuss together
  - Be respectful of each other and allow everyone to speak

- Tips:
  - Start with making sure that everyone agrees to work on the same problem
  - Allow everyone to contribute or a chance to ask questions.
  - Ask if everyone agrees and periodically ask each other questions.
  - Call TAs or Adrian over if you need any help.
  - Don’t sit in silence.