

# CPSC 231 Tutorial #9

[michael-hung.ca/teaching](http://michael-hung.ca/teaching)

# Reminders

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## TODAY

Quiz #5

## THURSDAY

Quiz #4/5 Review

## FRIDAY

Assignment #3 Individual Component

## OCTOBER 25

Alberta Collegiate Programming Contest (ACPC) Signup Deadline  
*Sign up for **Division 2** since you haven't taken CPSC 319/331*

# Last time...

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- Python Lists
  - Iteration
  - Bounds
  - Append
  - Remove
  - Sort
  - Reverse
- Aliases
- Copy

# Drawing n Cards

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Construct a deck of cards using lists. Shuffle the deck, then draw n cards.

## **INPUT**

n Number of cards to draw from deck

## **OUTPUT**

Cards drawn

# File Input/Output

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```
my_file = open(<filename>, <access_mode>)
```

**<filename>**           String; Path to file you want to open

**<access\_mode>**       String; Changes what you can do with file

# File Access Modes

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- r** read-only; pointer at beginning of file; default
- r+** read and write; pointer at beginning of file
- w** write-only; overwrite if exists; create otherwise
- w+** write and read
- a** append; pointer at end of file if exists; create otherwise

# Closing a file

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```
my_file.close()
```

Make sure you always close a file when you're done with it.

## with keyword

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```
with open(<filename>) as f:  
    #do something with f
```

Using the with keyword ensures that file is closed properly every time.



# Reading from the File

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- **read()** read *all* contents of file
- **readline()** read contents of a single line
- **readlines()** read all contents of file and put into list

You can also iterate over each line in a file:

```
for line in my_file:  
    #do something with line
```

The line variable will just be a string, you'll still have to parse it accordingly.

# Some Useful String Functions

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- **rstrip()**  
Removes trailing whitespace, such as `\n`
- **split(<delimiter>)**  
Splits string into a list  
`<delimiter>` is the character you want to split on

# Writing to File

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with open(<filename>, 'w') as f:

    f.write(<string-to-write>)