Making a Program

Comments in Python

- Anything after a **#** is ignored by Python

- Why comment?

  – Describe what is going to happen in a sequence of code

  – Document who wrote the code or other ancillary information

  – Turn off a line of code - perhaps temporarily

```python
# Get the name of the file and open it
name = input('Enter file:')
handle = open(name, 'r')

# Count word frequency
counts = dict()
for line in handle:
    words = line.split()
    for word in words:
        counts[word] = counts.get(word,0) + 1

# Find the most common word
bigcount = None
bigword = None
for word,count in counts.items():
    if bigcount is None or count > bigcount:
        bigword = word
        bigcount = count

# All done
print(bigword, bigcount)
```

Converting User Input

- If we want to read a number from the user, we must convert it from a string to a number using a type conversion function

- Later we will deal with bad input data

```python
# Convert elevator floors
inp = input('Europe floor?')
usf = int(inp) + 1
print('US floor', usf)
```

Europe floor? 0
US floor 1

Summary

- Type

- Reserved words

- Variables (mnemonic)

- Operators

- Operator precedence

- Integer Division

- Conversion between types

- User input

- Comments (#)

Exercise

Write a program to prompt the user for hours and rate per hour to compute gross pay.

```
Enter Hours: 35
Enter Rate: 2.75

Pay: 96.25
```

Acknowledgements / Contributions

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