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

```
# 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

```
# 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

Initial Development: Charles Severance, University of Michigan School of Information

… Insert new Contributors and Translators here

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