

# Data Exchange Formats

## Data Manipulation in Python

# Data Exchange Formats

- ▶ XML
- ▶ JSON

# XML Format

people.xml:

```
<?xml version="1.0"?>

<people>
  <person>
    <firstName>Alan</firstName>
    <lastName>Turing</lastName>
    <professions>
      <profession>Computer Scientist</profession>
      <profession>Mathematician</profession>
      <profession>Computer Scientist</profession>
      <profession>Cryptographer</profession>
    </professions>
  </person>
  <person>
    <firstName>Stephen</firstName>
    <lastName>Hawking</lastName>
    <professions>
      <profession>Physicist</profession>
      <profession>Comedian</profession>
    </professions>
  </person>
</people>
```

# Processing XML

- ▶ Python's built-in [ElementTree API](#)
- ▶ [xmldict](#) "makes working with XML feel like you are working with JSON"

# JSON Format

Just like Python data structures but you have to use double quotes for strings.

# Processing JSON

- ▶ Python's built-in `JSON` encoder and decoder