If statements

if statements

- Simplest form:

  ```
  if expression:

  body
  ```

- How it's executed:

  1. Evaluate the expression.

  2. If the result is `True` then execute the body.

  3. If the result is `False`, skip the body.

- Example:

```
if temperature < 0:
    print "Brrr, it's freezing!"
```

- The *expression* must be a boolean expression.

- The *body* can be any number of statements. It can even include other if statements.

- More complex form:
  Any number of expressions and their bodies.

```
if expression1:
    body
elif expression2:
    body2
elif expression3:
    body3
```

- How it's executed:

  Evaluate the expressions, in order. For the first one that evaluates to `True`,

  - execute the associated body

  - and terminate the if-statement (*without* checking further conditions).

Compare this

```
if sunny:

    print "I love the sunshine!"
elif warm:

    print "Yay, it's nice and warm."
```

vs

```
if sunny:

    print "I love the sunshine!"

if warm:

    print "Yay, it's nice and warm."
```

Option: a final else, whose body is executed if none of the previous expressions evaluates to `True`:

```python
if grade >= 80:

    letter_grade = "A"

elif grade >= 70:

    letter_grade = "B"

elif grade >= 60:

    letter_grade = "C"

elif grade >= 50:

    letter_grade = "D"

else:

    letter_grade = "F"
```

Cohort Session Today

- Marked on timetable as tutorial

- 3-4 p.m. CC 1180

- 6 Wednesdays during the term

Other Announcements

- DB vs. Email vs. Anonymous Feedback

- Starting class on time

- Get going on the assignment