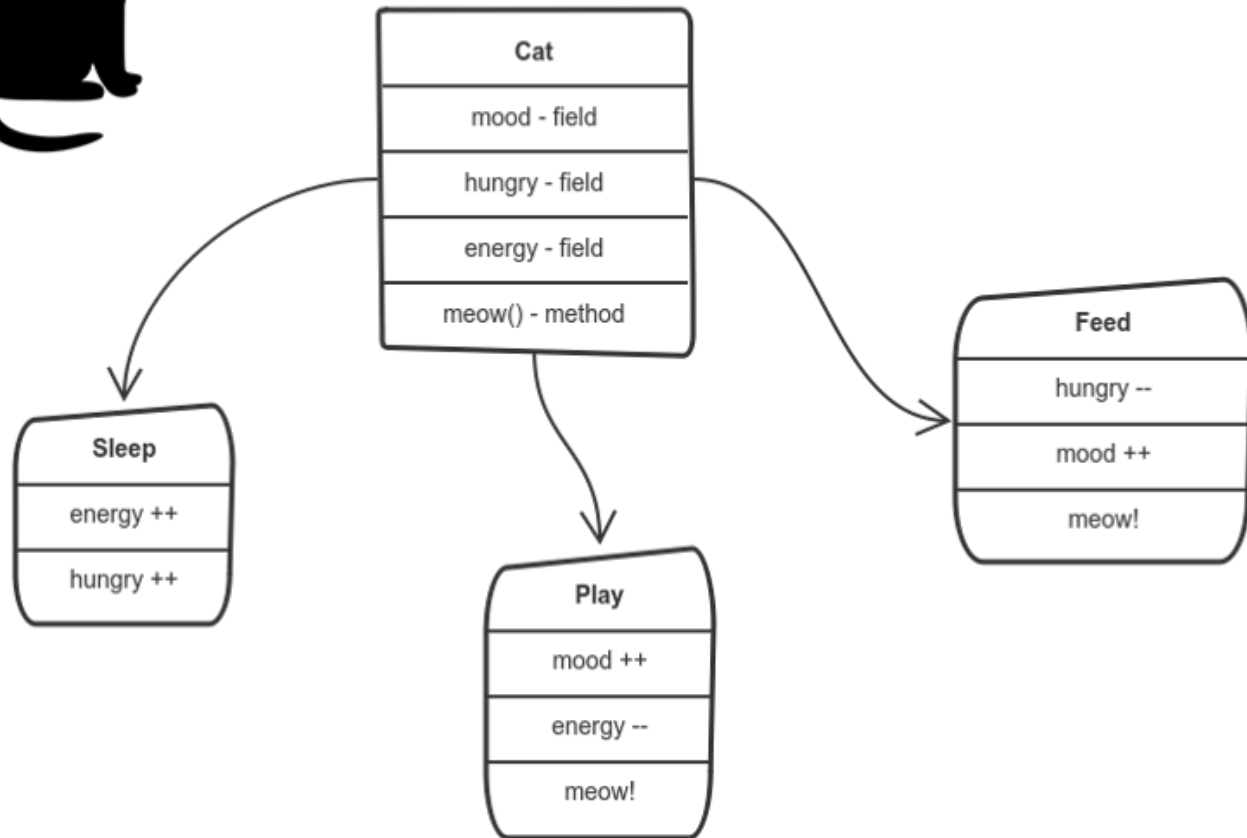# Object-Oriented Programming

## Week 1 | Lecture 2

# What is an Object?

- An **Object** is:
  - Anything for which we want to save information
  - Something tangible (e.g. Cat, Car)
  - Something that can be captured intellectually

- An **Object** has:
  - State/Attribute/Properties/Data
  - Well-defined Behavior/Methods/Functions

**Cat**

| |
|---|
| mood - field |
| hungry - field |
| energy - field |
| meow() - method |

**Sleep**

| |
|---|
| energy ++ |
| hungry ++ |

**Play**

| |
|---|
| mood ++ |
| energy -- |
| meow! |

**Feed**

| |
|---|
| hungry -- |
| mood ++ |
| meow! |

# Exercise

- Are there any 'objects' in this classroom?

# Exercise

- Are there any 'objects' in this classroom
  - Chair
  - Multimedia
  - Student
  - Teacher

## Person

| |
|---|
| name |
| email |

## Teacher

| |
|---|
| everything from Person |
| Subject |

## Student

| |
|---|
| everything from person |
| Classes |
| Grades |

## Private Teacher

| |
|---|
| everything from Teacher |
| Students |

## Public Teacher

| |
|---|
| everything from Teacher |
| School |
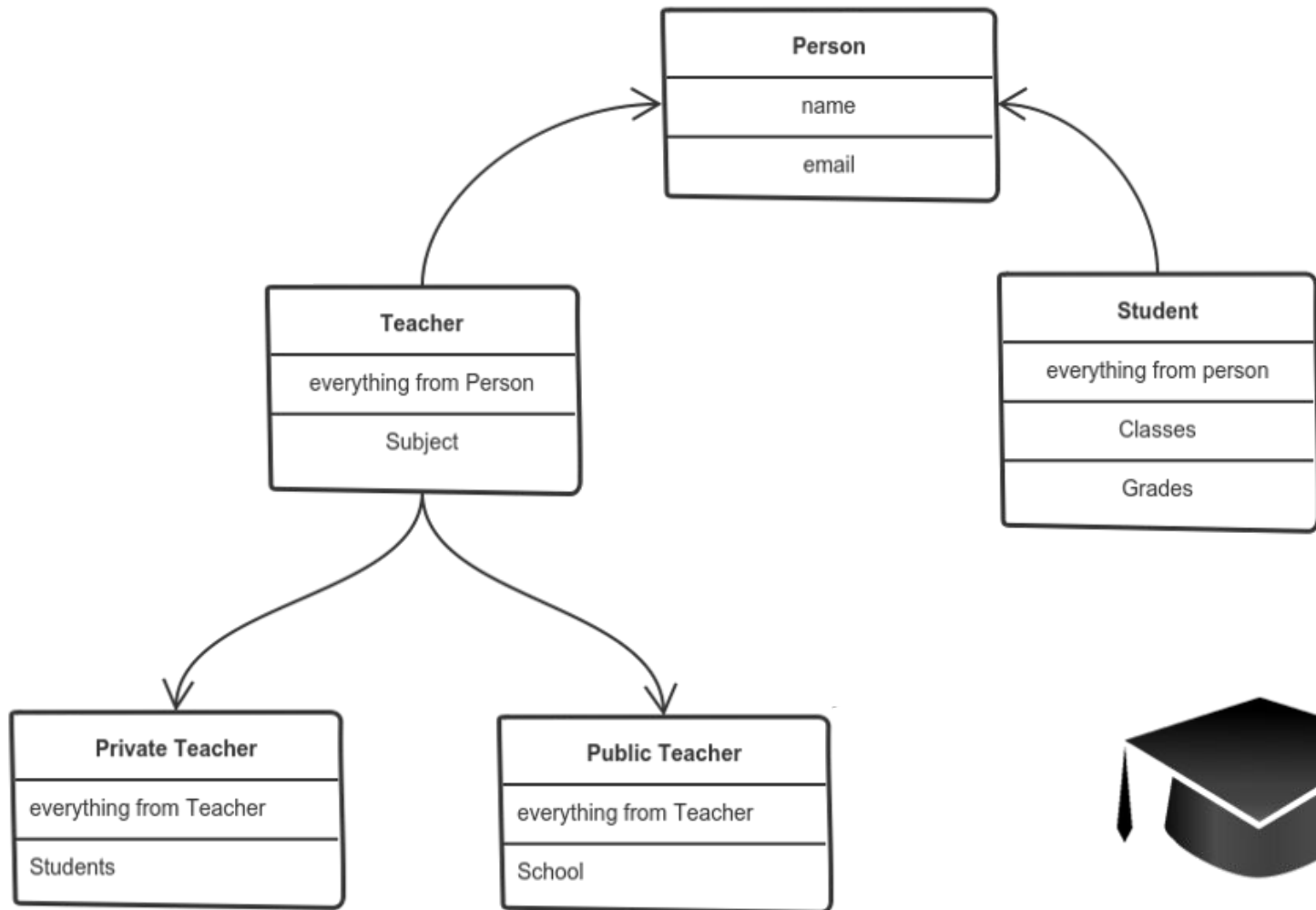
# Exercise

- Possible Objects in this university?