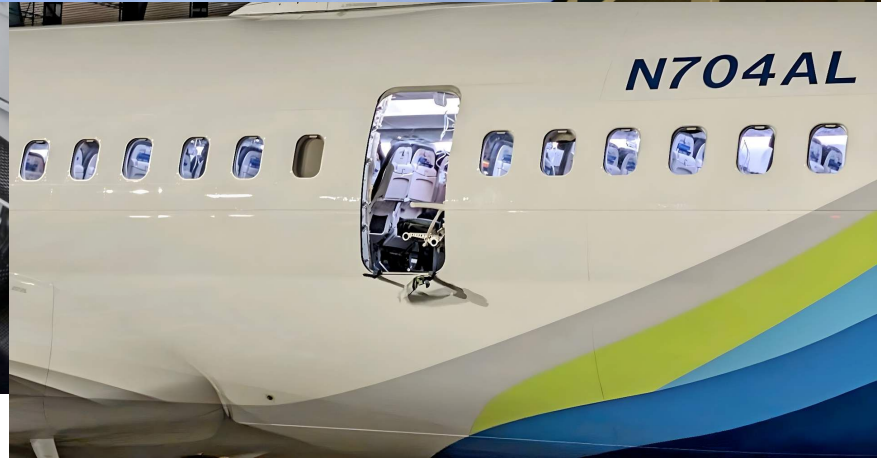
CS 103000
Prof. Madeline Blount

Week 10

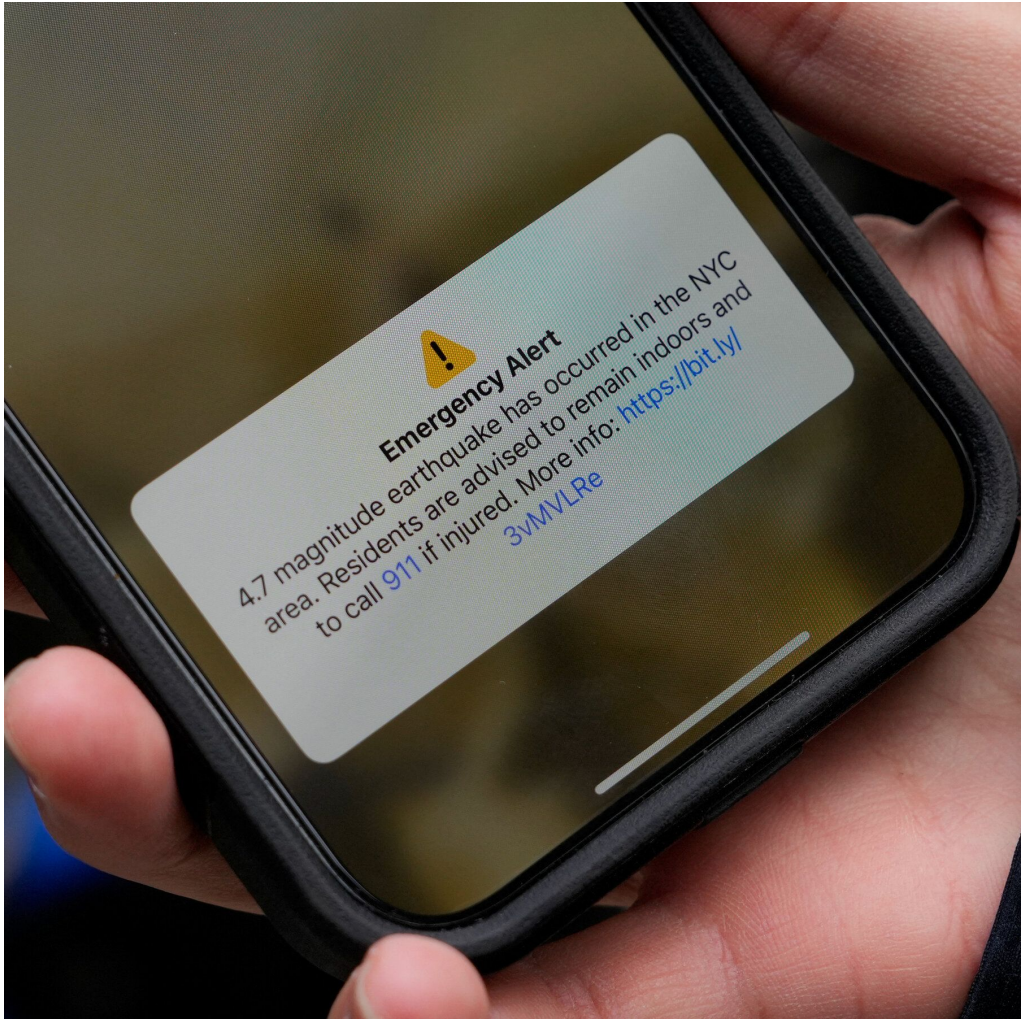
attendance link:

NO ATTENDANCE TODAY

Dall-E 2: cats learning C++ in the forest on '90's technology


N704AL


WALLENIUS

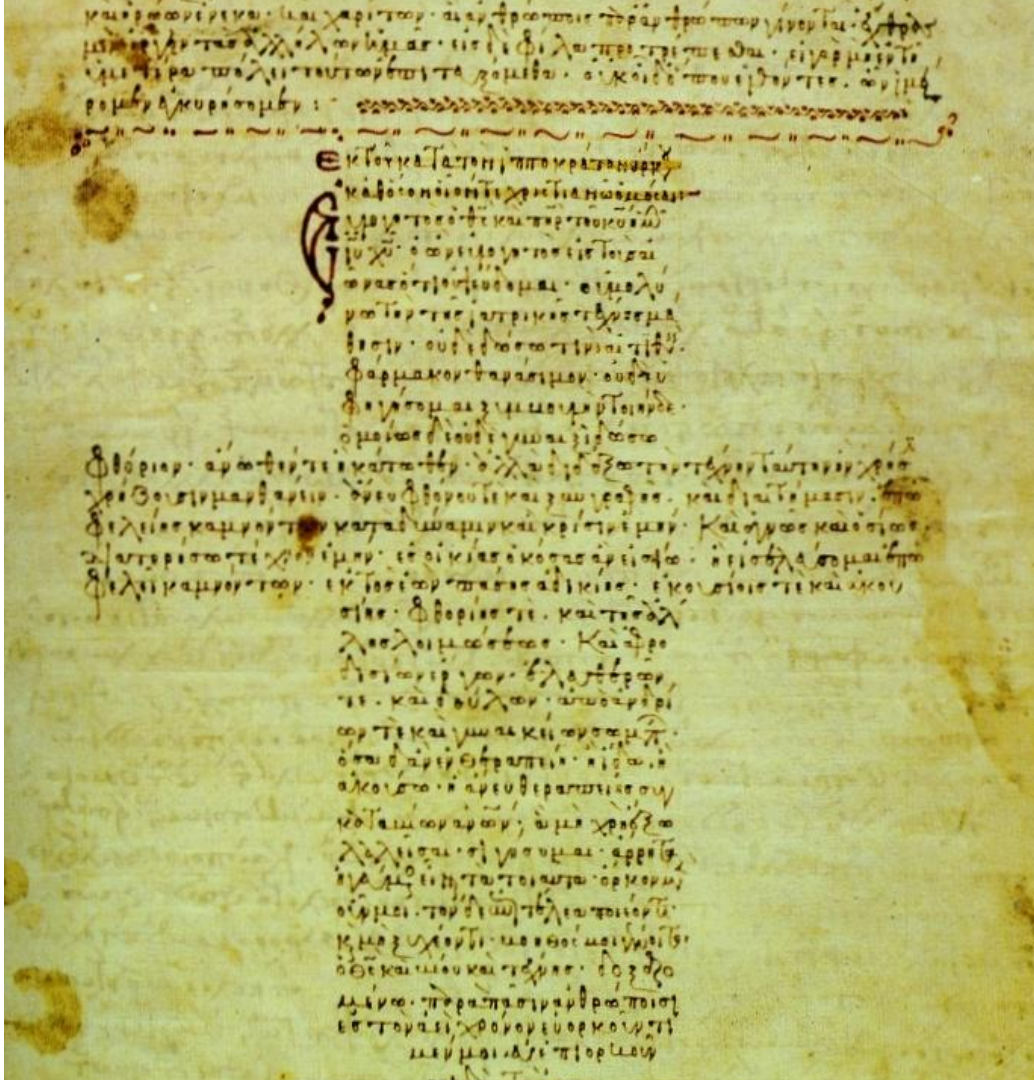

Emergency Alert
4.7 magnitude earthquake has occurred in the NYC area. Residents are advised to remain indoors and to call 911 if injured. More info: https://bit.ly/3vMVLRe

Harvard Scholar Who Studies Honesty Is Accused of Fabricating Findings

Questions about a widely cited paper are the latest to be raised about methods used in behavioral research.

“first, do no harm”

- Hippocratic oath, medicine
- Modern version



The Critical Engineering Working Group
Berlin, October 2011–2021

Julian Oliver
Gordan Savičić
Danja Vasiliev

THE CRITICAL ENGINEERING MANIFESTO

0. The Critical Engineer considers Engineering to be the most transformative language of our time, shaping the way we move, communicate and think. It is the work of the Critical Engineer to study and exploit this language, exposing its influence.

🌍 CLASSES + OBJECTS = NEW PARADIGM

- Procedural programming
- Functional programming
- Object-oriented programming (OOP)
  - *More* abstraction
  - *More* control

🌍 **OBJECT ORIENTED = NEW PARADIGM, classes**

- Bjarne Stroustrup made C++ with classes in mind
- CLASS = **make your own data type**
- WHEN make a class?
  - When some data type will repeat
  - When your data will have multiple attributes
  - “Model” something in the world

codecademy

Lightbulb
isOn *(boolean)*
watts *(number)*
turnOn() *(func)*

Microphone
color *(string)*
isAnalog *(boolean)*
record() *(func)*

Animal
color *(string)*
age *(number)*
speak() *(func)*

Date
month *(number)*
year *(number)*
toString() *(func)*

CLASS vs. OBJECT

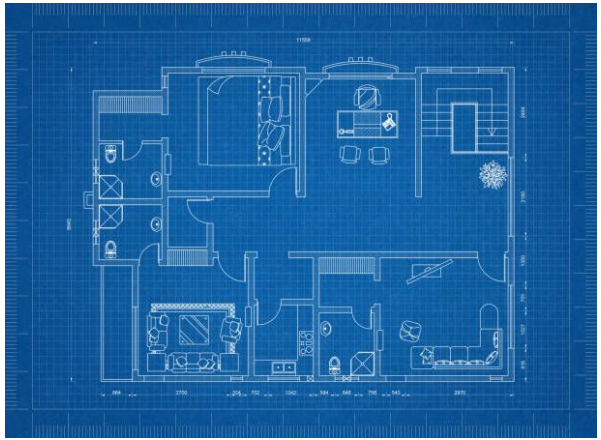
- **Class is the blueprint; object is an INSTANCE of the class**

CLASS

OBJECT

blueprint

building



CLASS vs. OBJECT

- **Class is the blueprint; object is an INSTANCE of the class**

CLASS

cookie cutter

OBJECT

cookie

CLASS vs. OBJECT

- **Class is the blueprint; object is an INSTANCE of the class**

CLASS

OBJECT

species

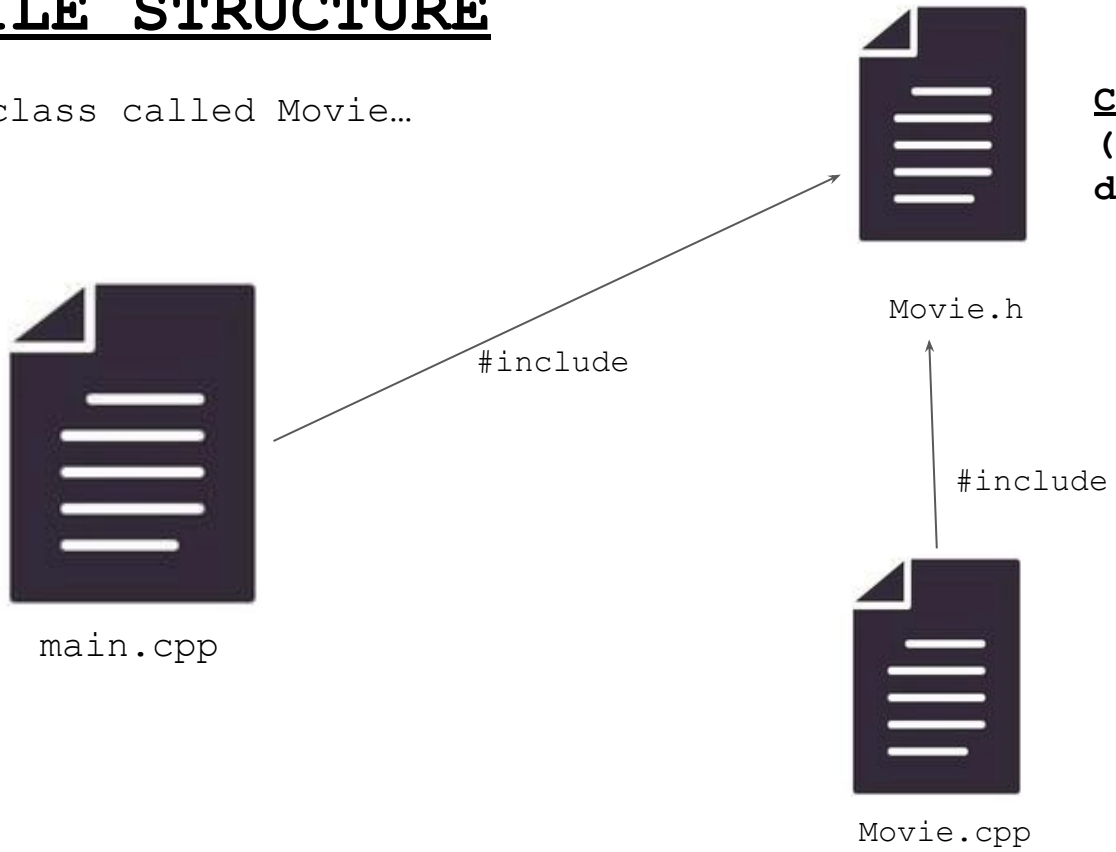
Actual birds in the world

MAKING A CLASS

- Class definition
- Attributes, or member data (what are the THINGS that define the objects in this class? Size, name, color, rate, cost, etc.)
- Methods, or member functions (what are the things you can DO with the objects in this class)

FILE STRUCTURE

imagine class called Movie…



compile: `g++ main.cpp Movie.cpp`