UCSF Intro To Programming

(AKA: Introduction to Computing for Biophysicists / Programming Fundamentals)

Object Oriented Programming (OOP)

















- Dimensions
- Square Footage
- Window Count
- Door Count

- Dimensions
- Square Footage
- Window Count
- Door Count

my_home = House(

- Dimensions
- Square Footage
- Window Count
- Door Count

my_home = House(home_dimentions, home_window_count, home_door_count)

```
home_dimentions = [10,10]
home_window_count = 5
home_door_count = 2

my_home = House( home_dimentions, home_window_count, home_door_count )
```

- Dimensions
- Square Footage
- Window Count
- Door Count

```
home_dimentions = [10,10]
home_window_count = 5
home_door_count = 2

my_home = House( home_dimentions, home_window_count, home_door_count )

print( 'My house has this many windows:', my_home.get_window_count() )
```

- Dimensions
- Square Footage
- Window Count
- Door Count

```
home\_dimentions = [10,10]
home_window_count = 5
home_door_count = 2
my_home = House( home_dimentions, home_window_count, home_door_count )
print( 'My house has this many windows:', my_home.get_window_count() )
```

class House:

- Dimensions
- Square Footage
- Window Count
- Door Count

```
class House:
    def __init__(self, dimentions, window_count, door_count):
home_dimentions = [10,10]
home_window_count = 5
home_door_count = 2
my_home = House( home_dimentions, home_window_count, home_door_count )
print( 'My house has this many windows:', my_home.get_window_count() )
```

- Dimensions
- Square Footage
- Window Count
- Door Count

```
class House:
   def __init__(self, dimentions, window_count, door_count):
   def find_square_footage(self):
   def get_window_count(self):
home\_dimentions = [10,10]
home_window_count = 5
home_door_count = 2
my_home = House( home_dimentions, home_window_count, home_door_count )
       'My house has this many windows:', my_home.get_window_count() )
```

- Dimensions
- Square Footage
- Window Count
- Door Count

```
class House:
    def __init__(self, dimentions, window_count, door_count):
        self.dimentions = dimentions
        self.window_count = window_count
        self.door_count = door_count
        self.square_footage = -1
   def find_square_footage(self):
   def get_window_count(self):
home_dimentions = [10,10]
home_window_count = 5
home_door_count = 2
my_home = House( home_dimentions, home_window_count, home_door_count )
print( 'My house has this many windows:', my_home.get_window_count() )
```

- Dimensions
- Square Footage
- Window Count
- Door Count

```
class House:
    def __init__(self, dimentions, window_count, door_count):
        self.dimentions = dimentions
        self.window_count = window_count
        self.door_count = door_count
        self.square_footage = -1
   def find_square_footage(self):
        square_footage = dimentions[0] * dimentions[1]
        self.square_footage = square_footage
        return square_footage
    def get_window_count(self):
        return self.window_count
home_dimentions = [10,10]
home_window_count = 5
home_door_count = 2
my_home = House( home_dimentions, home_window_count, home_door_count )
print( 'My house has this many windows:', my_home.get_window_count() )
```

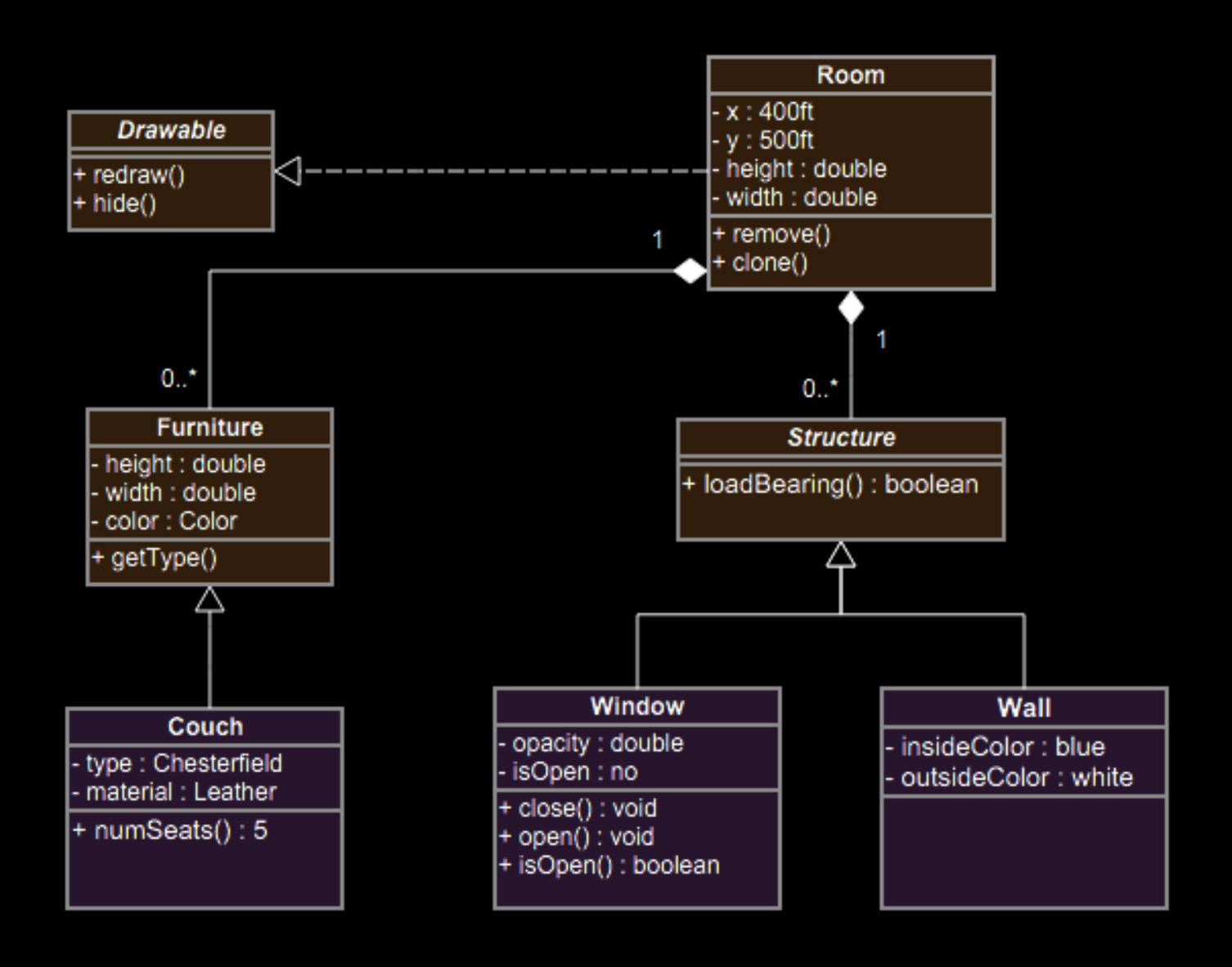
- Dimensions
- Square Footage
- Window Count
- Door Count

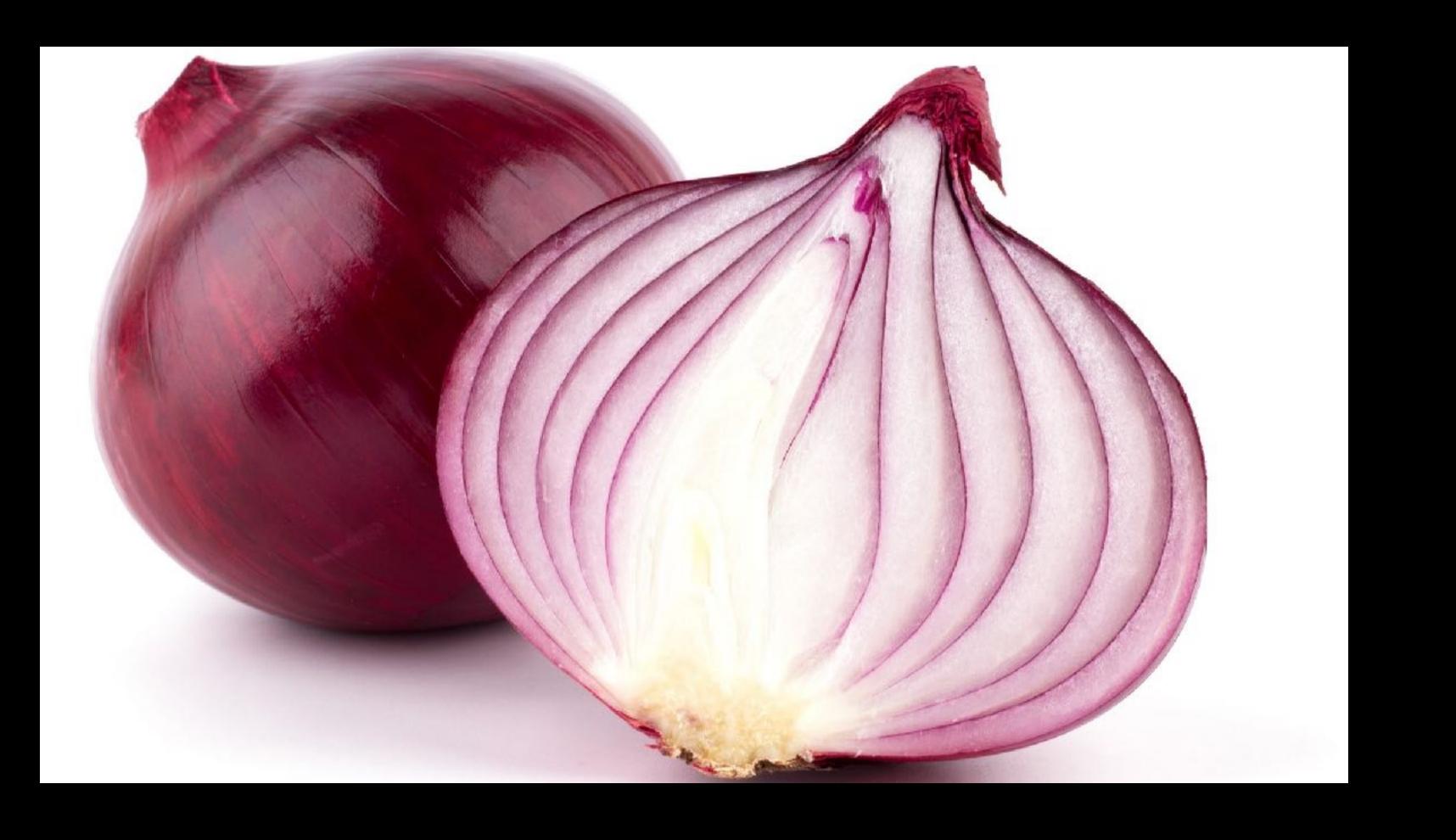






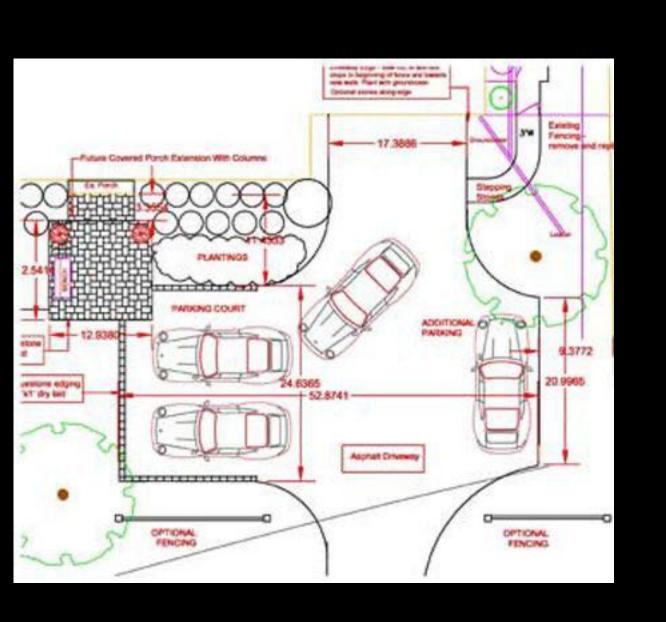


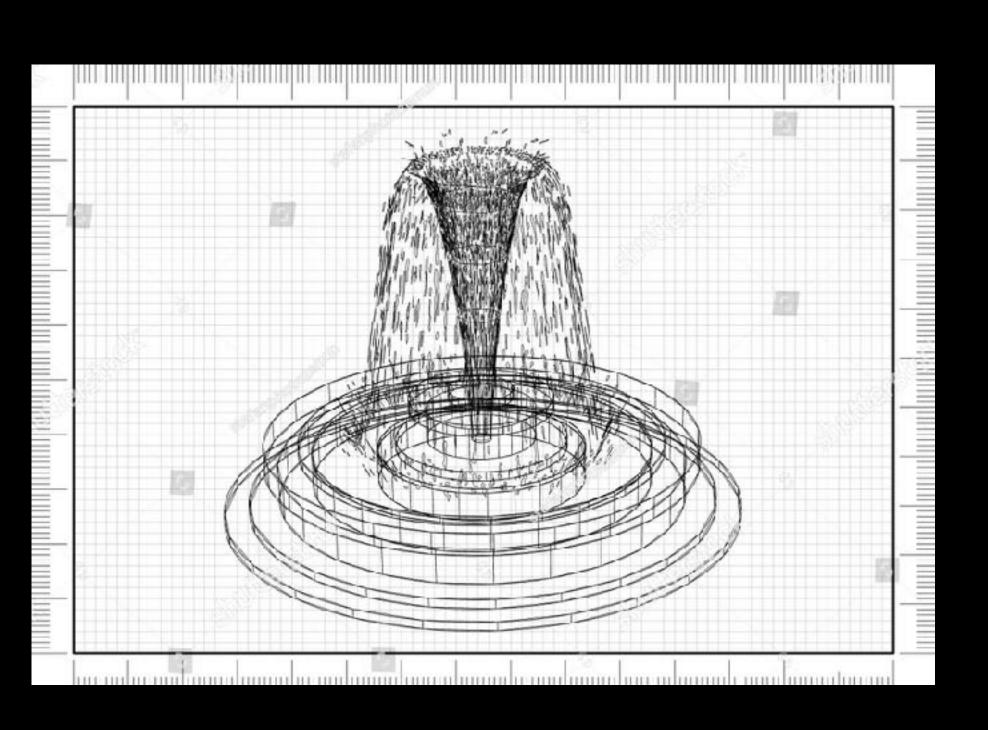




Packages



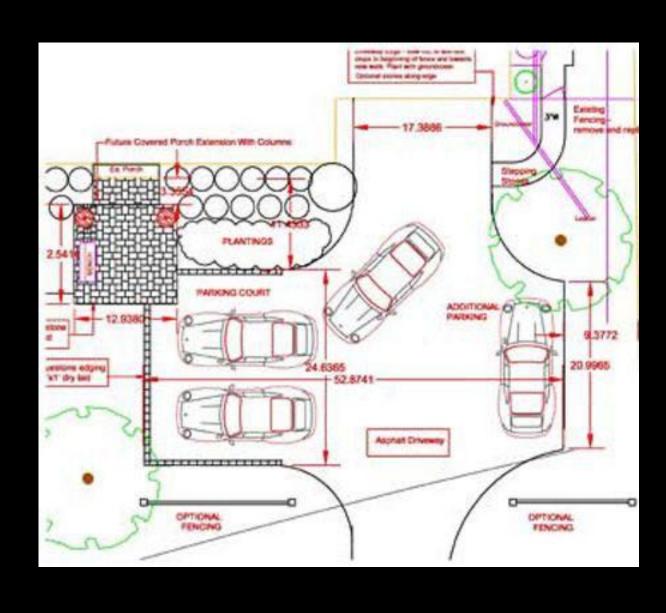


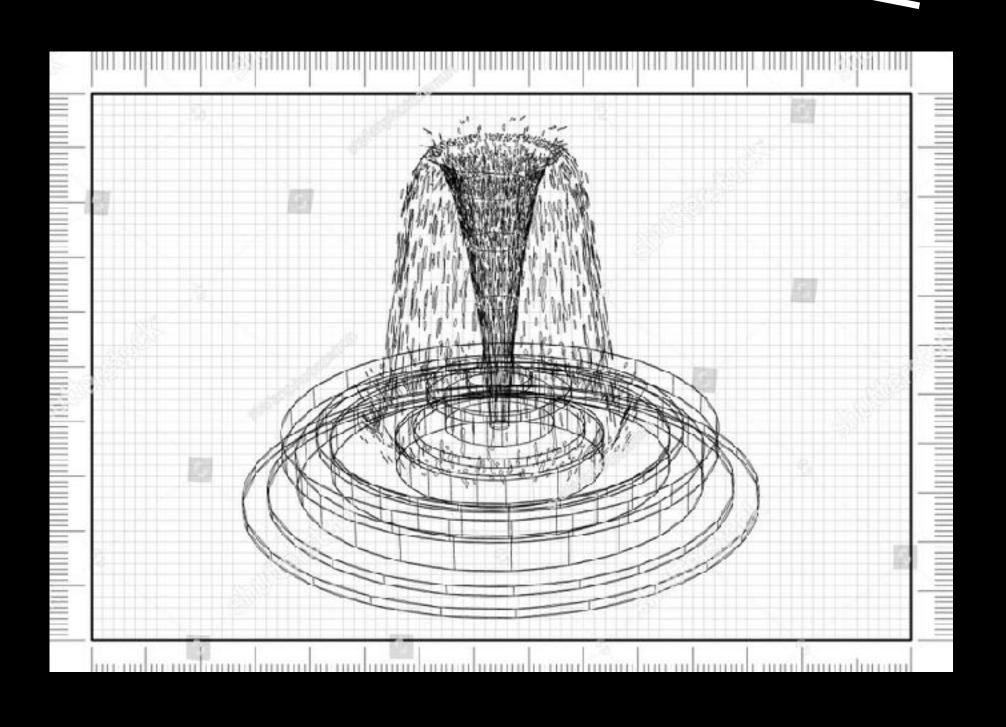


Civil Engineer Package

civil_engineering





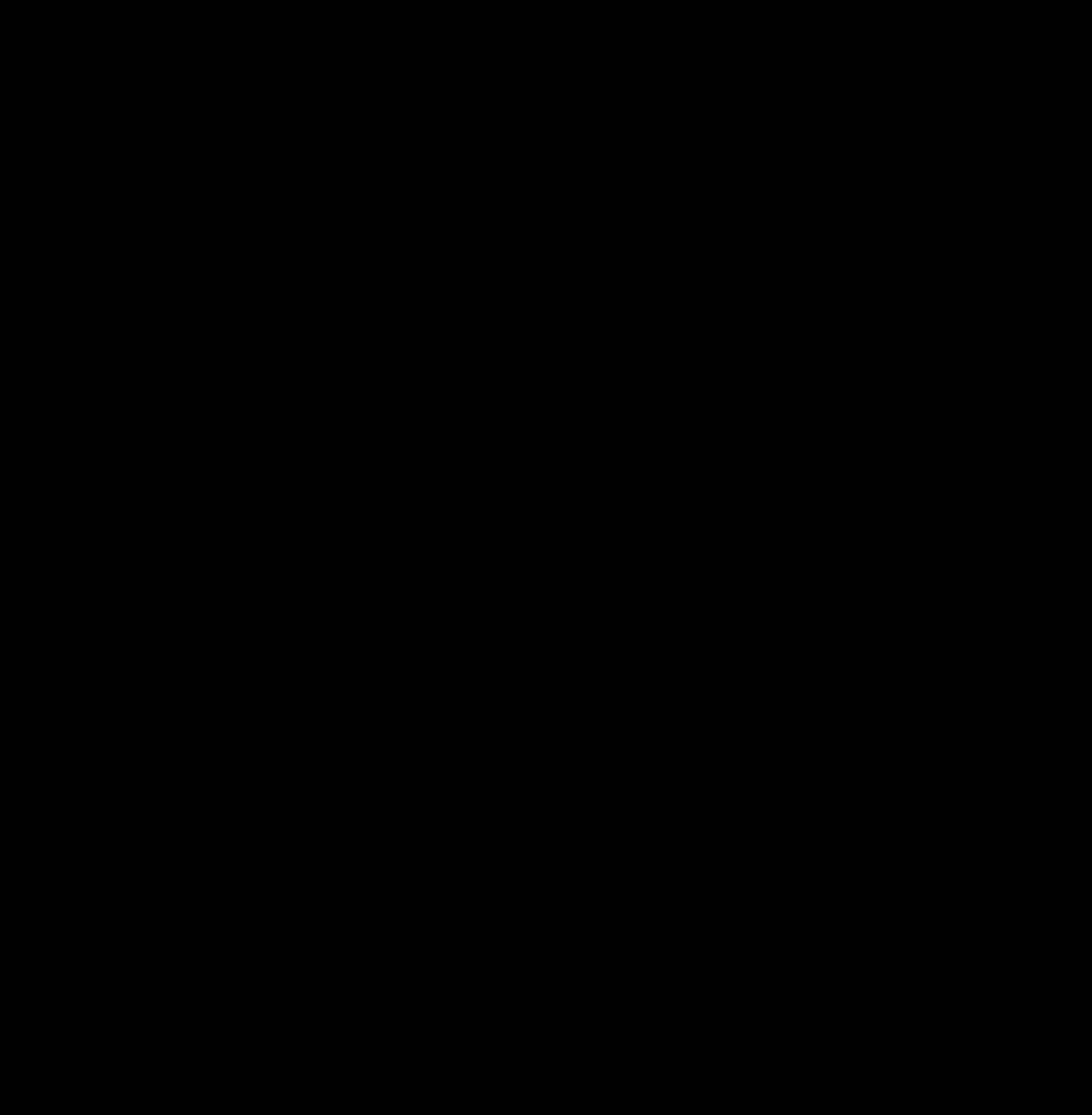


```
class House:
    def __init__(self, dimentions, window_count, door_count):
        self_{\bullet} dimentions = dimentions
        self window_count = window_count
        self.door_count = door_count
        self.square_footage = -1
    def find_square_footage(self):
        square_footage = dimentions[0] * dimentions[1]
        self.square_footage = square_footage
        return square_footage
    def get_window_count(self):
        return self window_count
```

```
class House:
    def __init__(self, dimentions, window_count, door_count):
        self.dimentions = dimentions
        self.window_count = window_count
        self.door_count = door_count
        self.square_footage = -1

def find_square_footage(self):
        square_footage = dimentions[0] * dimentions[1]
        self.square_footage = square_footage
        return square_footage

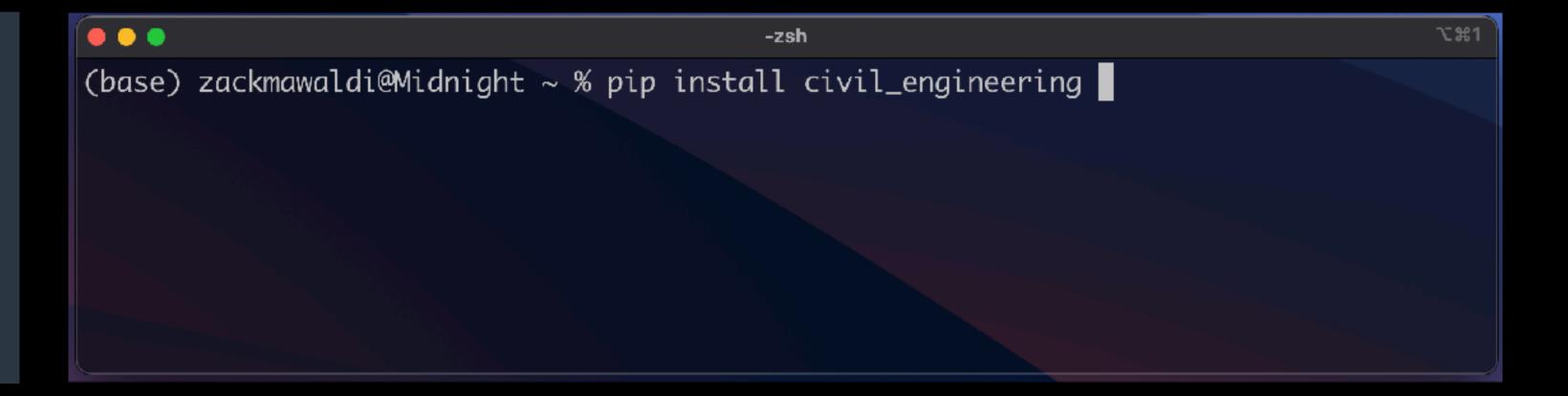
def get_window_count(self):
        return self.window_count
```



```
class House:
    def __init__(self, dimentions, window_count, door_count):
        self.dimentions = dimentions
        self.window_count = window_count
        self.door_count = door_count
        self.square_footage = -1

def find_square_footage(self):
        square_footage = dimentions[0] * dimentions[1]
        self.square_footage = square_footage
        return square_footage

def get_window_count(self):
        return self.window_count
```



```
class House:
    def __init__(self, dimentions, window_count, door_count):
        self.dimentions = dimentions
        self.window_count = window_count
        self.door_count = door_count
        self.square_footage = -1

def find_square_footage(self):
        square_footage = dimentions[0] * dimentions[1]
        self.square_footage = square_footage
        return square_footage

def get_window_count(self):
        return self.window_count
```

```
-zsh

(base) zackmawaldi@Midnight ~ % pip install civil_engineering
```

from civil_engineering.buildings import House

my_home = House(home_dimentions, home_window_count, home_door_count)

Conda (Package Manager)

Conda

project_1

python 3.11

civil_engineering v1.2 college_degree v0.9

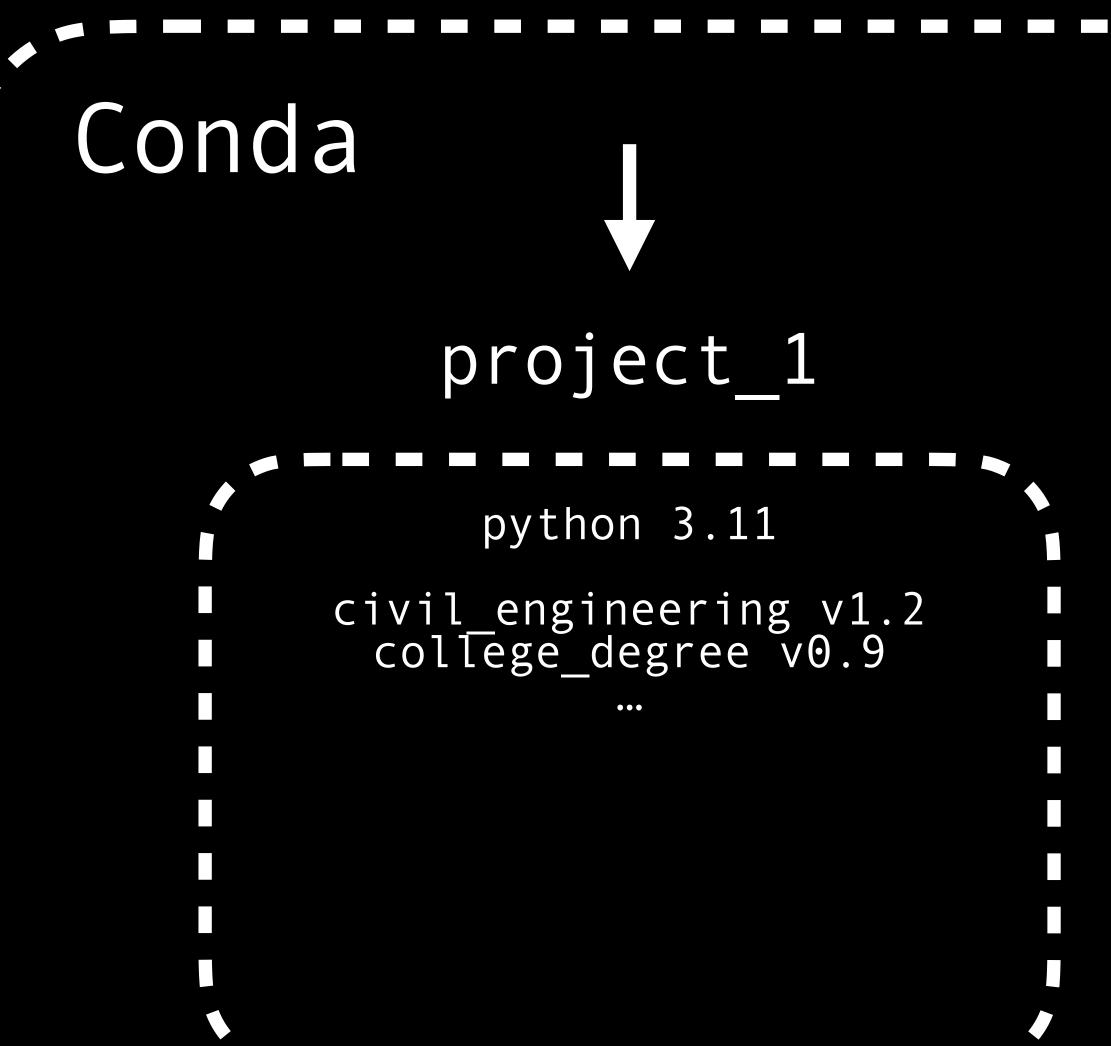
•••

project_2

python 2.09

civil_engineering v0.2 college_degree v0.3

•••



```
project_2
```

python 2.09

civil_engineering v0.2

college_degree v0.3
...