class Duck:

def \_\_init\_\_(self, name, age):

# name = "swetha"

self.name = name

self.age = age

def speak(self, times):

return self.name + " says " + "quack " \* times

def walk(self):

return self.name + " walking like a duck"

class Dog:

def speak(self, times):

return "bow wow" \* time

duck1 = Duck("swetha", 23) # {name:"swetha", speak(), walk()}

print(duck1.speak(2)) # speak(duck1, 2)

print(duck1.walk()) # walk(duck1)

duck2 = Duck("vishnu", 16) # {name:"vishnu"}

print(duck2.speak(1))

class Student:

def \_\_init\_\_(self, name):

self.name = name

def greet(self):

return self.name + " hi"

def rename(self, newname):

self.name = newname

def sing(self):

return "nice song"

class DumbStudent:

def \_\_init\_\_(self, name):

self.name = name

def sing(self):

return "dumb song"

s1 = Student("Vishnu", True)

# name is a property in object(s1)

s1.name # "vishnu"

s1.name = "swetha"

#s1.age error since accessing a unknown property

s1.age = 10

s1.age # this is ok singe age is a known property now because of s1.age = 10

s1.rename("karthik")

s1.name

s1.greet() # "karthik hi"

class Circle:

def \_\_init\_\_(self, radius):

self.radius = radius

def area(self):

return 22/7\*self.radius\*\*2

class Square:

def \_\_init\_\_(self, side):

self.side = side

def area(self):

return self.side\*\*2

c1 = Circle(10)

c1.area()

s1 = Square(10)

s1.area()

shapes = [c1, s1]

total = 0

for s in shapes:

total = total + s.area()