Class Variables: Class variables are variables that are shared among all the instances of a class so while instance variables can be unique for each instance like our name emails and pay , class variable should be the same for each instance

class Employee:

def \_\_init\_\_(self,first,last,pay):

self.first = first

self.last = last

self.pay = pay

self.email = first + "." + last + "@company.com"

emp1 = Employee("Ravi", "Reddy", 50000)

emp2 = Employee("Sunil", "Reddy", 60000)

print(emp1.email)

print(emp2.email)

So say if we want to track the list of employess we can do that creating class variable.

num\_of\_emps = 0

def \_\_init\_\_(self,first,last,pay):

self.first = first

self.last = last

self.pay = pay

self.email = first + "." + last + "@company.com"

Employee.num\_of\_emps += 1

emp1 = Employee("Ravi", "Reddy", 50000)

emp2 = Employee("Sunil", "Reddy", 60000)

print(Employee.num\_of\_emps)

Difference between regular methods class methods and static methods ?

So regular method in a class automatically takes the instance as the first argument and by convention we were calling this “self”so if a regular method automatically takes in the instance as the first argument then how we can change this so that it instead automatically takes the class as the first argument now to do that we’re going to use class methods and to turn a regular method into a class method it’s as easy as adding a decorator to the top called class method so let’s go ahead and create one of the these

@classmethod

def set\_raise\_amt(cls,amount):

cls.raise\_amt = amount

class Employee:

num\_of\_emps = 0

raise\_amt = 1.04

def \_\_init\_\_(self,first,last,pay):

self.first = first

self.last = last

self.pay = pay

self.email = first + "." + last + "@company.com"

Employee.num\_of\_emps += 1

def apply\_raise(self):

self.pay = int(self.pay \* self.raise\_amt)

@classmethod

def set\_raise\_amt(cls,amount):

cls.raise\_amt = amount

print(Employee.raise\_amt)

print(emp1.raise\_amt)

print(emp2.raise\_amt)

Now we want to change from 4% to 5 % the we can do

def set\_raise\_amt(cls,amount):

cls.raise\_amt = amount

emp1 = Employee("Ravi", "Reddy", 50000)

emp2 = Employee("Sunil", "Reddy", 60000)

Employee.set\_raise\_amt(1.05)

#print(Employee.num\_of\_emps)

print(Employee.raise\_amt)

print(emp1.raise\_amt)

print(emp2.raise\_amt)

class Employee:

num\_of\_emps = 0

raise\_amt = 1.04

def \_\_init\_\_(self,first,last,pay):

self.first = first

self.last = last

self.pay = pay

self.email = first + "." + last + "@company.com"

Employee.num\_of\_emps += 1