

ASSIGNMENT-3

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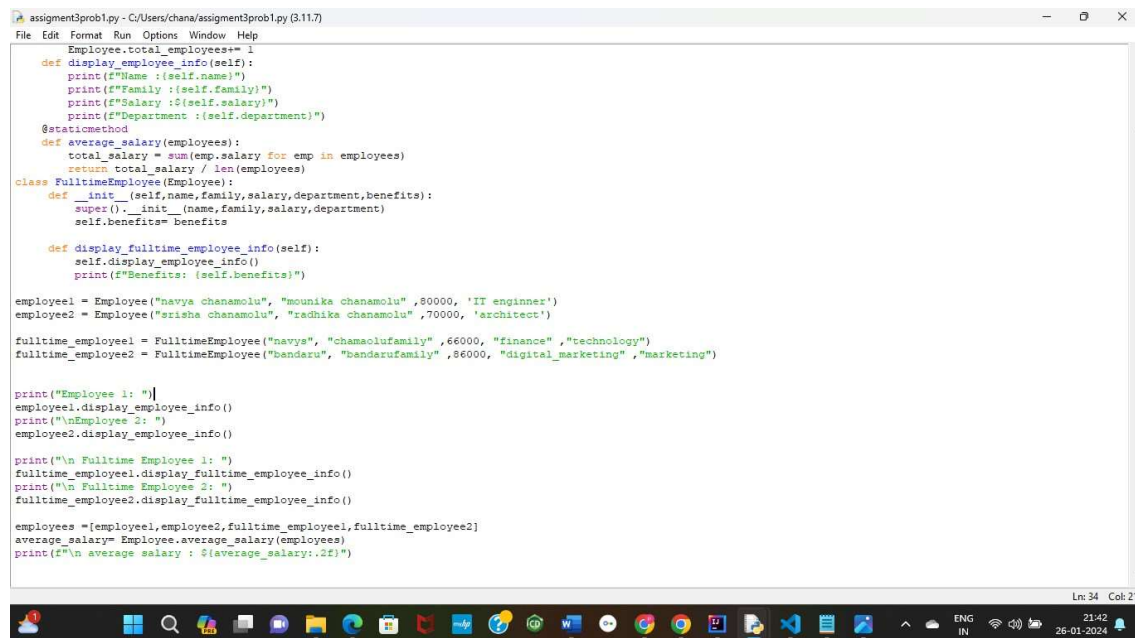
NEURAL NETWORKS & DEEP LEARNING

Github link: https://github.com/pxc99740/Neural_Networks_assignment-3.git

Video link:

https://drive.google.com/drive/folders/1QzRngT9Io4dN5j7piy2oR_29LxkXkoBL

Screenshots:



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assignment3prob1.py - C:/Users/chana/assignment3prob1.py (3.11.7)
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Employee.total_employees+=1
def display_employee_info(self):
    print(f"Name :{self.name}")
    print(f"Family :{self.family}")
    print(f"Salary :{self.salary}")
    print(f"Department :{self.department}")
    @staticmethod
    def average_salary(employees):
        total_salary = sum(emp.salary for emp in employees)
        return total_salary / len(employees)
class FulltimeEmployee(Employee):
    def __init__(self,name,family,salary,department,benefits):
        super().__init__(name,family,salary,department)
        self.benefits= Benefits
    def display_fulltime_employee_info(self):
        self.display_employee_info()
        print(f"Benefits: {self.benefits}")

employee1 = Employee("navya chanamolu", "mounika chanamolu", 80000, 'IT enginner')
employee2 = Employee("erisha chanamolu", "redhika chanamolu", 70000, 'architect')

fulltime_employee1 = FulltimeEmployee("navya", "chanamolufamily", 66000, "finance", "technology")
fulltime_employee2 = FulltimeEmployee("bandaru", "bandarufamily", 86000, "digital_marketing", "marketing")

print("Employee 1: ")
employee1.display_employee_info()
print("\nEmployee 2: ")
employee2.display_employee_info()

print("\n Fulltime Employee 1: ")
fulltime_employee1.display_fulltime_employee_info()
print("\n Fulltime Employee 2: ")
fulltime_employee2.display_fulltime_employee_info()

employees =[employee1,employee2,fulltime_employee1,fulltime_employee2]
average_salary= Employee.average_salary(employees)
print(f"\n average salary : ${average_salary:.2f}")

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def display_employee_info(self):
    print(f"Name :{self.name}")
    print(f"Family :{self.family}")
    print(f"Salary :{self.salary}")
    print(f"Department :{self.department}")

@staticmethod
def average_salary(employees):
    total_salary = sum(emp.salary for emp in employees)
    return total_salary / len(employees)

class FulltimeEmployee(Employee):
    def __init__(self, name, family, salary, department, benefits):
        super().__init__(name, family, salary, department)
        self.benefits = benefits

    def display_fulltime_employee_info(self):
        self.display_employee_info()
        print(f"Benefits: {self.benefits}")

employee1 = Employee("navya chanamol", "mounika chanamol", 80000, 'IT enginner')
employee2 = Employee("srisha chanamol", "radhika chanamol", 70000, 'architect')

fulltime_employee1 = FulltimeEmployee("navya", "chanamolfamily", 66000, "finance", 'technology')
fulltime_employee2 = FulltimeEmployee("bandaru", "bandarufamily", 86000, "digital_marketing", 'marketing')

print("Employee 1: ")
employee1.display_employee_info()
print("\nEmployee 2: ")
employee2.display_employee_info()

print("\n Fulltime Employee 1: ")
fulltime_employee1.display_fulltime_employee_info()
print("\n Fulltime Employee 2: ")
fulltime_employee2.display_fulltime_employee_info()

employees = [employee1, employee2, fulltime_employee1, fulltime_employee2]
average_salary = Employee.average_salary(employees)
print(f"\n average salary : ${average_salary:.2f}")

IDLE Shell 3.11.7
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Python 3.11.7 (tags/v3.11.7:fa7a6f2, Dec 4 2023, 19:24:49) [MSC v.1937 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>
= RESTART: C:/Users/chana/assignment3prob1.py
Employee 1:
Name :navya chanamol
Family :mounika chanamol
Salary :80000
Department :IT enginner

Employee 2:
Name :srisha chanamol
Family :radhika chanamol
Salary :70000
Department :architect

Fulltime Employee 1:
Name :navya
Family :chanamolfamily
Salary :66000
Department :finance
Benefits: technology

Fulltime Employee 2:
Name :bandaru
Family :bandarufamily
Salary :86000
Department :digital_marketing
Benefits: marketing

average salary : $75500.00
>>>
```

```
assignment3prob2.py - C:/Users/chana/assignment3prob2.py (3.11.7)
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import numpy as np

random_vector = np.random.uniform(1,20,20)
reshaped_array = random_vector.reshape(4,5)
max_indices = np.argmax(reshaped_array,axis=1)

for row_idx, max_idx in enumerate(max_indices):
    reshaped_array[row_idx, max_idx] = 0

print("random vector")
print(random_vector)

print("\n reshaped vector (4x5)")
print(reshaped_array)

IDLE Shell 3.11.7
File Edit Shell Debug Options Window Help

Python 3.11.7 (tags/v3.11.7:fa7a6f2, Dec 4 2023, 19:24:49) [MSC v.1937 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>
= RESTART: C:/Users/chana/assignment3prob2.py
random vector
[ 0.      12.03979856  4.29049245 16.88226863  1.54143761  7.26005077
  6.23931719  1.22971177  6.56433539  0.      0.      2.94460209
  6.52424892  9.92858711  1.66661116 17.62558107  0.      12.69914393
  2.82991617 15.01539226]

reshaped vector (4x5)
[[ 0.      12.03979856  4.29049245 16.88226863  1.54143761]
 [ 7.26005077  6.23931719  1.22971177  6.56433539  0.      ]
 [ 0.      2.94460209  6.52424892  9.92858711  1.66661116]
 [17.62558107  0.      12.69914393  2.82991617 15.01539226]]
>>>
```