

# NEURAL NETWORK ASSIGNMENT 3

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## Question-1

```
In [3]: class Employee:
    def __init__(self): #constructor for name,family,salary and Department.
        self.name = "jyoshna"
        self.family = 6
        self.salary = 98665
        self.department = "civil"
    def __init__(self, name, family, salary, department):
        self.name = name
        self.family = family
        self.salary = salary
        self.department = department

    def count_emp(self, emp1, fullemp1):
        print("The total Number of Employees(employee+Fulltime employee):", len(emp1+fullemp1)) #countin

    def avg_salary(self, emp1, fullemp1): #calculating the average salary of all employees.
        su = 0
        for i in emp1:
            su = su + i.salary
        for i in fullemp1:
            su = su + i.salary
        print("the average salary of the all the Employees(employee+Fulltime employee):", su/2)

class Fulltime_Employee(Employee):
    pass
```

```
---
n = int(input("enter number of employees"))
pe = []
for i in range(0, n):
    na = input("enter name")
    f = int(input("enter how many family members"))
    s = int(input("enter salary"))
    d = input("enter department")
    obj = Employee(na, f, s, d)
    pe.append(obj)
full = int(input("enter Full time employees"))
fe = []
for i in range(0, full):
    na = input("enter name")
    f = int(input("enter how many family members"))
    s = int(input("enter salary"))
    d = input("enter department")
    obj = Fulltime_Employee(na, f, s, d)
    fe.append(obj)

result = Fulltime_Employee(na, f, s, d)
result.count_emp(pe, fe) #function call
result.avg_salary(pe, fe) #function call
```

OUTPUT:

```

enter number of employees4
enter namejyoshna
enter how many family members4
enter salary8900
enter departmentcivil
enter nameakhil
enter how many family members4
enter salary7890
enter departmentIT
enter namenishanth
enter how many family members3
enter salary9087
enter departmentECE
enter namevijay
enter how many family members2
enter salary7650
enter departmentCSE
enter Full time employees3
enter namesowmaya
enter how many family members6
enter salary7890
enter departmentcse
enter namepravallika
enter how many family members4
enter salary8900
enter departmentECE

```

```

enter namearha
enter how many family members6
enter salary5678
enter departmentIT
The total Number of Employees(employee+Fulltime employee): 7
the average salary of the all the Employees(employee+Fulltime employee): 27997.5

```

## Question-2

In [4]:

```

import numpy as np #import numpy
x = np.arange(1,21,dtype=float) #vector of size 1-20
print("Vector :",x)
x=x.reshape(4,5)
print("Then reshape the array to 4 by 5:",x)
def replace(x):
    a=x
    a[:,np.argmax(x, axis=1)] = 0
    return a
result= replace(x)
print("replace the max in each row by 0 (axis=1):",result)

```

```

Vector : [ 1.  2.  3.  4.  5.  6.  7.  8.  9. 10. 11. 12. 13. 14. 15. 16. 17. 18.
 19. 20.]
Then reshape the array to 4 by 5: [[ 1.  2.  3.  4.  5.]
 [ 6.  7.  8.  9. 10.]
 [11. 12. 13. 14. 15.]
 [16. 17. 18. 19. 20.]]
replace the max in each row by 0 (axis=1): [[ 1.  2.  3.  4.  0.]
 [ 6.  7.  8.  9.  0.]
 [11. 12. 13. 14.  0.]
 [16. 17. 18. 19.  0.]]

```

VEDIO LINK:

[https://drive.google.com/file/d/1Dkg\\_yeEjTDEAjSpwXqW34NbXLJbFgy\\_r/view?usp=drive\\_link](https://drive.google.com/file/d/1Dkg_yeEjTDEAjSpwXqW34NbXLJbFgy_r/view?usp=drive_link)