Program2a_2140232

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[ ]:
```
class client:
    name_list = []
    num_of_clients = 0

    raise_amt = 1.04

    def __init__(self, first, last, gender,savings):
        self.first = first
        self.last = last
        self.gender = gender
        self.savings = savings
        self.regno = client.num_of_clients
        client.num_of_clients += 1
        client.name_list.append(self)

    def fullname(self):
        return "{} {}".format(self.first.title(), self.last.title())

    def email(self):
        return self.first +"."+ self.last + str(1000 + self.regno)+ "@company.
 ↪com"

    def apply_interest(self):
        self.savings = int(self.savings * self.raise_amt)




class employee(client):
    name_list = []
    num_of_employees = 1
    def __init__(self, first, last, gender , clients = None):
        self.first = first
        self.last = last
```

```
        self.gender = gender
        self.regno = employee.num_of_employees
        employee.num_of_employees += 1
        if clients is None:
            self.clients = []
        else:
            self.clients = clients
        employee.name_list.append(self)

    def add_client(self,i):
        if i not in self.clients:
            self.clients.append(i)
    def remove_client(self,i):
        if i  in self.clients:
            self.clients.remove(i)
    def print_client(self):
        print("Clients under",self.fullname(),"with their emails")
        for i in self.clients:
            print("->", i.fullname(),"-",i.email())

        return ""
```

[ ]:
```
# creating instances

n1 = client("joel","varghese","M",9000)
n2 = client("jo","anna","F",9000)
n3 = client("christopher","columbus","M",9000)
n4 = client("rem","doe","F",10000)
n5 = client("kevin","spacey","M",8000)
n6 = client("nila","rajashekar","F",9900)
```

[ ]:
```
# displaying full name and applying interest to the savings

print("full name of first client : ",n1.fullname())

print("savings : ")
print(n1.savings)

print("savings after applying interest :")
n1.apply_interest()
print(n1.savings)
```

```
full name of first client :  Joel Varghese
savings :
9000
savings after applying interest :
9360
```

[ ]:
```
# printing fullnames and emails
print(n1.fullname())
print(n1.email())

print(n2.fullname())
print(n2.email())

print(n5.fullname())
print(n5.email())
```

```
Joel Varghese
joel.varghese1000@company.com
Jo Anna
jo.anna1001@company.com
Kevin Spacey
kevin.spacey1004@company.com
```

[ ]:
```
# creating an employee instance and assigning clients to the employee

e1 = employee("fred","luxemborg","M",[n1,n3])
print(e1.email())
print(e1.fullname())
print(e1.print_client())
```

```
fred.luxemborg1001@company.com
Fred Luxemborg
Clients under Fred Luxemborg with their emails
-> Joel Varghese - joel.varghese1000@company.com
-> Christopher Columbus - christopher.columbus1002@company.com
```

[ ]:
```
# adding a client to employee

e1.add_client(n5)
print(e1.print_client())
```

```
Clients under Fred Luxemborg with their emails
-> Joel Varghese - joel.varghese1000@company.com
-> Christopher Columbus - christopher.columbus1002@company.com
-> Kevin Spacey - kevin.spacey1004@company.com
```

[ ]:
```
# removing a client from employee

e1.remove_client(n1)
print(e1.print_client())
```

```
Clients under Fred Luxemborg with their emails
-> Christopher Columbus - christopher.columbus1002@company.com
-> Kevin Spacey - kevin.spacey1004@company.com
```

[ ]:
```python
# printing all the client names

for i in client.name_list:
    print(i.fullname())
```

```
Joel Varghese
Jo Anna
Christopher Columbus
Rem Doe
Kevin Spacey
Nila Rajashekar
```

[ ]:
```python
# pritnig all the emploee name

for i in employee.name_list:
    print(i.fullname())
```

```
Fred Luxemborg
```

[ ]:
```python
# printing client names who are male

for i in client.name_list:
    if i.gender == "M":
        print(i.fullname())
```

```
Joel Varghese
Christopher Columbus
Kevin Spacey
```

[ ]:
```python

```