In [15]:
```python
#9-1
class Restaurant:
    def __init__(self,restaurant_name,cuisine_type):
        self.name = restaurant_name
        self.type = cuisine_type

    def describe_restaurant(self):
        print(self.name.title() + " is my hotel")
        print(self.type.title() + " is my restaurant type")

    def open_restaurant(self):
        print("Restaurant is open now.")


my_restaurant = Restaurant("Al-Habib","Good")


# Making an instance
print("My Restaurant name is " +  my_restaurant.name.title())
print("My Restaurant Cuisine type  is " +  my_restaurant.type.title())

###########################
print("----------------------------")
print("Now calling method")
print("----------------------------")

#Calling Method
my_restaurant.describe_restaurant()
my_restaurant.open_restaurant()
```

```
My Restaurant name is Al-Habib
My Restaurant Cuisine type  is Good
----------------------------
Now calling method
----------------------------
Al-Habib is my hotel
Good is my restaurant type
Restaurant is open now.
```

In [18]:
```python
#9-2
your_restaurant = Restaurant("Lettuce Meat" , "Beef")
print("Your Restaurant name is " +  your_restaurant.name.title())
print("Your Restaurant Cuisine type  is " +  your_restaurant.type.title())
print("Your Restaurant Cuisine type  is " +  your_restaurant.type.title())
```

```
Your Restaurant name is Lettuce Meat
Your Restaurant Cuisine type  is Beef
Your Restaurant Cuisine type  is Beef
```

In [32]:
```python
#9-3

class User:
    def __init__(self,first_name , last_name , address , number):
        self.f_name = first_name
        self.l_name = last_name
        self.address = address
        self.number = number



    def describe_user(self):
        print("First name is " + self.f_name.title())
        print("Last name is " + self.l_name.title())
        print("Home address is " + self.address.title())
        print("Number is " + str(self.number))


    def greet_user(self):
        print("Hello, How are you " + self.f_name.title())


#Instances
my_user = User("Arif" , "Soomro","Karachi" , "12345678")
print(my_user.f_name)
print(my_user.l_name)
print(my_user.address)
print(my_user.number)


print("----------------------------")
print("Now calling method")
print("----------------------------")

my_user.describe_user()
my_user.greet_user()
```

```
Arif
Soomro
Karachi
12345678
----------------------------
Now calling method
----------------------------
First name is Arif
Last name is Soomro
Home address is Karachi
Number is 12345678
Hello, How are you Arif
```

In [89]:
```python
#9-4

class Restaurant:
    def __init__(self,restaurant_name,cuisine_type):
        #Initialize attributes to the Restaurant class
        self.name = restaurant_name
        self.type = cuisine_type
        self.number_served = 0
        self.login_attempt = 0

    def set_no__served(self ):
        print(str(self.number_served) + " customer  is served")

    def increment_number_served(self,number):
        self.number_served += number
        print(str(self.number_served) + " customers  are served in the whole d

    def increment_login_attempt(self):
        self.login_attempt += 1

    def reset_login_attempt(self):
        self.login_attempt = 0


    def describe_restaurant(self):
        print(self.name.title() + " is my hotel")
        print(self.type.title() + " is my restaurant type")

    def open_restaurant(self):
        print("Restaurant is open now.")

my_restaurant = Restaurant("Al Asif","Good")
# -------Printing different instances--------#
# print(my_restaurant.name)
# print(my_restaurant.type)
# print(my_restaurant.number_served)

# ------set_no_served--------#
# my_restaurant.number_served = 23
# my_restaurant.set_no__served()

# ------adding incement_number_served method---------#
# my_restaurant.increment_number_served(500)


#--------------increment_login_attempt--------#
print(f" No of user attempts {my_restaurant.login_attempt}")
my_restaurant.increment_login_attempt()
my_restaurant.increment_login_attempt()
my_restaurant.increment_login_attempt()
print(f" No of user attempts {my_restaurant.login_attempt}")
my_restaurant.reset_login_attempt()
print(f" No of user attempts {my_restaurant.login_attempt}")
```

```
 No of user attempts 0
 No of user attempts 3
 No of user attempts 0
```

In [1]:
```python
#9-6
class Restaurant:
    def __init__(self, name, cuisine_type):
        self.name = name
        self.cuisine_type = cuisine_type

    def describe_restaurant(self):
        print(f"{self.name} is a {self.cuisine_type} restaurant.")

    def open_restaurant(self):
        print(f"{self.name} is open for business.")

class IceCreamStand(Restaurant):
    def __init__(self, name, cuisine_type='ice cream'):
        super().__init__(name, cuisine_type)
        self.flavors = []

    def display_flavors(self):
        print("We have the following flavors of ice cream:")
        for flavor in self.flavors:
            print(f"- {flavor.title()}")

# Example usage
my_ice_cream_stand = IceCreamStand('Scoops')
my_ice_cream_stand.flavors = ['vanilla', 'chocolate', 'strawberry']
my_ice_cream_stand.describe_restaurant()
my_ice_cream_stand.display_flavors()
```

```
Scoops is a ice cream restaurant.
We have the following flavors of ice cream:
- Vanilla
- Chocolate
- Strawberry
```

In [2]:
```python
#9-7

class User:
    def __init__(self, first_name, last_name, username, email, location):
        self.first_name = first_name
        self.last_name = last_name
        self.username = username
        self.email = email
        self.location = location

    def describe_user(self):
        print(f"{self.first_name} {self.last_name} ({self.username}) is from {

    def greet_user(self):
        print(f"Hello, {self.first_name}!")

class Admin(User):
    def __init__(self, first_name, last_name, username, email, location):
        super().__init__(first_name, last_name, username, email, location)
        self.privileges = ["can add post", "can delete post", "can ban user"]

    def show_privileges(self):
        print("This user has the following privileges:")
        for privilege in self.privileges:
            print(f"- {privilege}")

# Example usage
my_admin = Admin('John', 'Doe', 'jdoe', 'jdoe@example.com', 'New York')
my_admin.describe_user()
my_admin.show_privileges()
```

```
John Doe (jdoe) is from New York.
This user has the following privileges:
- can add post
- can delete post
- can ban user
```

In [ ]: