Task 08

Topics: Classes in Python, Inheritance in Classes

Class in Python

main.py

```python
class Restaurant:
    def __init__(self, restaurant_name, cuisine_type):
        self.restaurant_name = restaurant_name
        self.cuisine_type = cuisine_type

    def open_restaurant(self):
        print(f"\n{self.restaurant_name} is open for Service")

    def describe_restaurant(self):
        print(f"\nThe restaurant name is {self.restaurant_name}")
        print(f"{self.restaurant_name} serves {self.cuisine_type} cuisine")


restaurant = Restaurant("Asian Wok", "Chinese")
print(restaurant.restaurant_name, restaurant.cuisine_type)

restaurant.open_restaurant()
restaurant.describe_restaurant()

# 9-2 Three restaurants
restaurant_1 = Restaurant("Ginyaki", "Japanese")
restaurant_2 = Restaurant("Al_Beirut Lebanese Cuisine", "Lebanese Arab")
restaurant_3 = Restaurant("Tuscany Courtyard", "Italian")

print("\n")

restaurant_1.describe_restaurant()
restaurant_2.describe_restaurant()
restaurant_3.describe_restaurant()
```

```
Asian Wok Chinese

Asian Wok is open for Service

The restaurant name is Asian Wok
Asian Wok serves Chinese cuisine



The restaurant name is Ginyaki
Ginyaki serves Japanese cuisine

The restaurant name is Al_Beirut Lebanese Cuisine
Al_Beirut Lebanese Cuisine serves Lebanese Arab cuisine

The restaurant name is Tuscany Courtyard
Tuscany Courtyard serves Italian cuisine
```

Inheritance in Classes

main.py

```python
# Define a parent class called Animal
class Animal:
  # Initialize the attributes of the class
  def __init__(self, name, color):
    self.name = name
    self.color = color
# Define a method to make a sound
  def make_sound(self):
    print(f"{self.name} makes a sound.")
# Define a child class called Dog that inherits from Animal
class Dog(Animal):
  # Initialize the attributes of the class
  def __init__(self, name, color, breed):
    # Call the parent class constructor with super()
    super().__init__(name, color)
    self.breed = breed
# Override the make_sound method to make a specific sound
  def make_sound(self):
    print(f"{self.name} barks.")
# Create an instance of Animal
animal = Animal("Leo", "brown")
# Call the methods of the instance
animal.make_sound()
print(animal.color)
# Create an instance of Dog
dog = Dog("Max", "black", "Labrador")
# Call the methods of the instance
dog.make_sound()
print(dog.breed)
```

```
Leo makes a sound.
brown
Max barks.
Labrador
```

End