OOPs Task

Assignment Questions

Assignment

Q1, Create a vehicle class with an init method having instance variables as name_of_vehicle, max_speed and average_of_vehicle.

TATA SAFARI Example:

Q2. Create a child class car from the vehicle class created in Que 1, which will inherit the vehicle class. Create a method named seating_capacity which takes capacity as an argument and returns the name of the vehicle and its seating capacity.

Q3. What is multiple inheritance? Write a python code to demonstrate multiple inheritance.

Multiple Inheritance : - In Python a class can inherit from more than one class

If a class inherits, it has the *methods and variables* from the **parent classes**.

In essence, it's called multiple inheritance because a class can inherit from multiple classes. This is a concept from object oriented programming.

CODE :--# Python Program to depict multiple inheritance

when every class defines the same method

```
 class Class1:
    def m(self):
       print("In Class1")
class Class2(Class1):
    def m(self):
       print("In Class2")
```

```python
class Class3(Class1):

    def m(self):

        print("In Class3")

class Class4(Class2, Class3):

    def m(self):

        print("In Class4")

obj = Class4()

obj.m()
```

OUTPUT

Class2.m(obj)

Class3.m(obj)

Class1.m(obj)

Q4. What are getter and setter in python? Create a class and create a getter and a setter method in this class.

A **getter** is a method that gets the value of a property. In OOPs this helps to access private attributes from a class.

A **setter** is a method that sets the value of a property. In OOPs this helps to set the value to private attributes in a class.

Q5.What is method overriding in python? Write a python code to demonstrate method overriding.

Method overriding in Python is when you have two methods with the same name that each perform different tasks. This is an important feature of inheritance in Python.

Data Science Masters