Data Science with ML

Day 4:
Topic – Python(Lambda functions and OOPs – Class/object, Inheritance and Polymorphism)

Assignment 3:-

1. Write a lambda function to merge two lists into a dictionary where one list represents keys and the other represents values.

2. Create a class Product with instance variables name and price. Also, add a class variable discount_rate and a method to calculate the discounted price.

3. Create a base class Shape with a method area(). Derive two subclasses Circle and Rectangle, each implementing their own area() method. (INHERITANCE)

4. Create two base classes Person and Employee, and derive a class Manager from both. (MULTIPLE INHERITANCE)

5. Implement a function play_sound() that accepts different animal objects (Dog, Cat, Cow) and calls their make_sound() method dynamically. (POLYMORPHISM)

6. Design a Car Rental System using Object-Oriented Programming (OOP) in Python. The system should include a Vehicle class and derived classes Car and Bike. Implement constructors and use inheritance to manage common and specific attributes.

submit your assignment to the below link
https://forms.gle/g3Qt5krnkJ1VqCWi6