3. Implementation Plan for OOP Concepts:

• Summarize how your code will realize encapsulation (access modifiers, getters,setters), inheritance (base and derived classes), and polymorphism (overriding, overloading, or interfaces)

.• Outline a preliminary directory structure or package organization that supportsyour design.

Encapsulation

The code uses encapsulation by making attributes private with \_\_, like \_\_username or \_\_content. This prevents them from being changed directly from outside the class. To access them, public methods like get\_username() are used. This helps protect the data and control how it's used.

Polymorphism

Polymorphism lets different classes use the same method name but with different behavior. In this case, both Message and MultimediaMessage have a show() method, but each one displays the message in its own way. This allows code reuse with flexibility.