Q1 Design a UML class diagram for a simplified vehicle registration system. Determine the classes, their attributes, and their methods based on the roles described.

Vehicle - *Manages information related to individual vehicles.*
Owner - *Keeps records of vehicle owners including their personal details and vehicle ownership history.*
Registration - *Handles the registration details of each vehicle, including registration dates and status.*
Inspection - *Manages details of vehicle inspections, necessary for registration renewal and safety standards.*
Insurance - *Tracks insurance policies associated with each vehicle, including policy numbers and coverage details.*
Department of Motor Vehicles (DMV) - *Oversees all operations related to vehicle registration, inspection, and insurance compliance.*

Note: Define each class, including attributes and methods that you think are appropriate based on the class's role. Use proper UML notation to represent classes, relationships, and visibility (public, private, protected).Also ensure encapsulation.