

Sunbeam Institute of Information Technology Pune,Karad

Java Optional Assignment - 2

Q1) Problem : Create a class Vehicle , under the package : com.app.vehicles , to represent any vehicle.

Supply tight encapsulation

state(data members) : chasisNo : int , color : String , price : double

chasisNo MUST be unique (non duplicate) for any vehicle (primary Key : unique ID)

Get complete state : toString

Hint : override equals method inherited from Object class : to replace ref equality by content equality(based upon unique ID : PK)

Create a class TestVehicle under the package "tester"

Accept details of 2 vehicles from user .

Display "SAME" or "DIFFERENT" , in case of same or different chasis nos.

Hint : invoke equals

Objective : Use exception handling , string handling & Date in vehicle showroom based scenario

Vehicle's state(attributes) --chasisNo : String , color : String ,category:string, price : double , manufactureDate(Date)

Add validation rules for the inputs :

chasisNo id unique

category : Petrol , Diesel, EV , Hybrid , CNG

manufactureDate : in this financial year (1st Apr 2021 to 31Mar 2022)

Create a main class as Showroom. By giving Options

1. Add Vehicle

Apply all validation rules . In case of success , add the vehicle in the showroom
Otherwise raise custom exception , alert user using exc handling.

2. Display All Vehicles

3. Exit