## Database Systems: CS 329

## Week 5 : EER

**Question#1:**Create an ERD for a car dealership. The dealership sells both new and used cars, and it operates a service facility .Base your design on the following business rules:

* A salesperson may sell many cars, but each car is sold by only one salesperson.
* A customer may buy many cars, but each car is bought by only one customer.
* A salesperson writes a single invoice for each car he or she sells.
* A customer gets an invoice for each car he or she buys.
* A customer may come in just to have his or her car serviced; that is, a customer need not buy a car to be classified as a customer.
* When a customer takes one or more cars in for repair or service, one service ticket is written for each car.
* The car dealership maintains a service history for each of the cars serviced. The service records are referenced by the car’s serial number.
* A car brought in for service can be worked on by many mechanics, and each mechanic may work on many cars.
* A car that is serviced may or may not need parts (e.g., adjusting a carburetor or cleaning a fuel injector nozzle does not require providing new parts).