

Assignment One

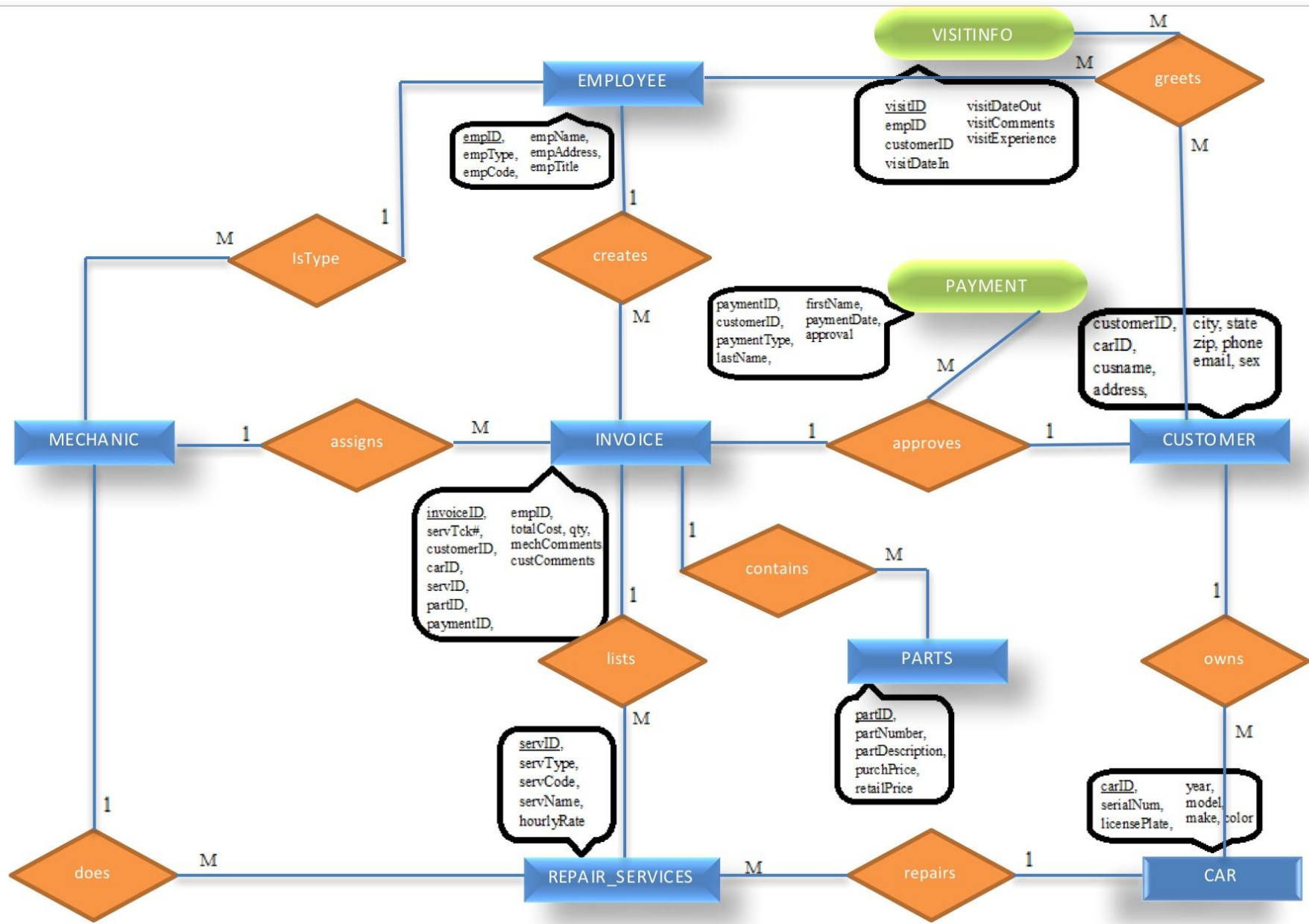
In this assignment, we need to create the data structure (with Chen's entity relationship model diagram) for a car mechanic service shop's invoice management system

We should build our model based on the following business rules:

1. All customers' contact information (name, phone number, home address, etc) must be kept.
2. All customers must be greeted by an employee for their visits, info. kept for invoice
3. All Parts & their prices, and labor cost per hour must be kept for invoice
4. All services must be itemized to list the parts and labor costs for invoice
5. Total Charges, dates, and technician for the services of each visit must be kept for invoice

How many entities do we need for this model?

- An **Employee** entity with possible fields of (empID, empType, empCode, empName, empAddress, empTitle).
- A **Repair_Services** entity with possible fields of (servID, servType, servCode, servName, hourlyRate).
- A **Parts** entity with possible fields of (partID, partNumber, partDescription, purchPrice, retailPrice).
- A **Car** entity with possible fields of (carID, serialNum, licensePlate, year, model, make, color).
- A **Customer** entity with possible fields of (customerID, carID, name, address, city, state, zip, phone, email,sex).
- A **Payment** entity with possible fields of (paymentID, customerID, paymentType, lastName, firstName, paymentDate, approval).
- A **visitInfo** entity with possible fields of (visitID, empID, customerID, visitDateIn, visitDateOut, visitComments, visitExperience).
- An **Invoice** entity with possible fields of (invoiceID, servTck#, customerID, carID, servID, partID, paymentID, empID, totalCost, qty, mechComments, custComments)



For each entity (table), how many fields are desired? Which could be the Primary Key? What is the relationship among the entities?

Employee	Employee : Table
Repair_Services	Repair_Services : Table
Parts	Parts : Table
Car	Car : Table
Customer	Customer : Table
Payment	Payment : Table
VisitInfo	visitInfo : Table
Invoice	Invoice : Table

