Computer Science Department

Database Systems 333

Software Requirements for [Showroom Name : Sinjlawi Auto]

[Group-4]

{Aseel Abd Elhaq / Deema Abu Nimeh / Qusay Taradeh / Muayad Karakra}

Summary

Our main idea for this project is to create an innovative way to collect data mainly from cars such as physical attributes like model type, color, number of seats , wheel sizes, doors, date of release and other aspects like engine power ,battery sizes. Alongside with that we will also be dealing with customer and employee relationships and much more, Once the idea is approved we will be having a meeting with our client in order to discuss which data is crucial when handling and creating a proper database for the client.

Introduction

Our main idea for this project is to create an innovative way to collect data mainly from cars such as physical attributes like model type, color, number of seats , wheel sizes, doors, date of release and other aspects like engine power ,battery sizes. Alongside that we will also be dealing with customer(through their social security number and name and phone number ,address) and employee relationships, and much more like searching through cars(With recommendation from employee) as well as a proper log in service, inventory management, rental booking alongside customer registration, removing cars that are no longer available and creating filter to allow us to search through cars using properties like price ranges and model types , Another innovative idea would be to have constraints on certain model type ages and release dates. Employees are also considered when creating this project in aspects like if the employee works hourly or full time and health insurance for the employee and their family .The car showroom branches will be shown with their location and contact information

Data Requirements

· Cars: Cars have a chassis number and attributes like model, Manufacturing Company , Color , Transmission Type , price , motor size , release year , fuel type .

· Clients : Clients have a unique Social Security Number (SSN) and Name as well as phone number and address.

· Employee: Employees have Social Security Numbers (SSN) and Name as well as Phone number , profession.

· Contract: A contract must have a monthly salary, Start date as well as end date.

· Working Hours : could either be an hourly salary or full time .

· Branch: Branches have address and branch number.

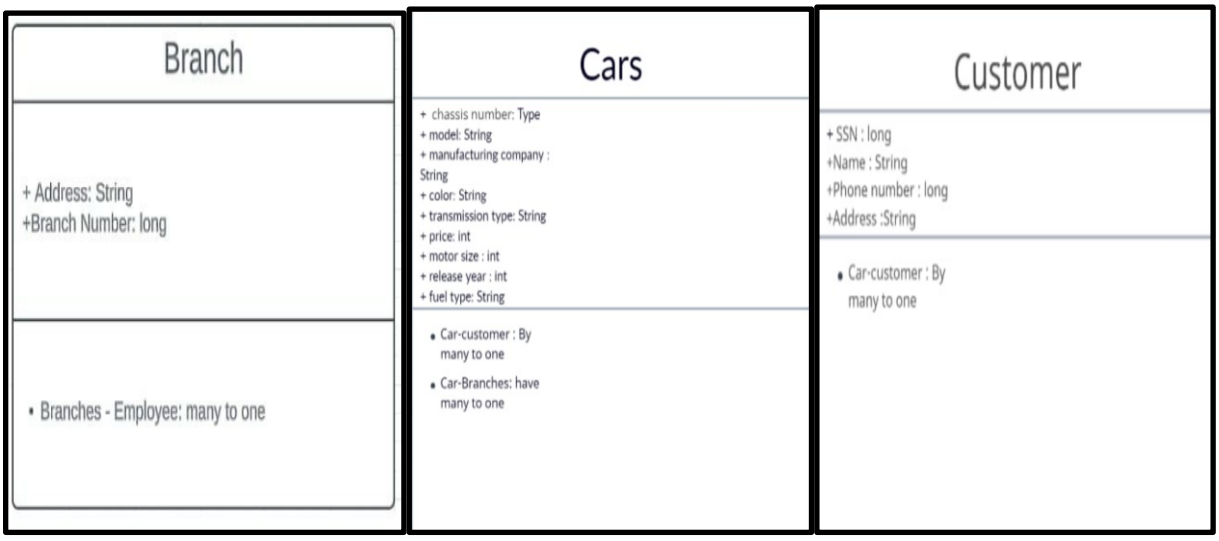
Musician-Instrument: Many-to-many

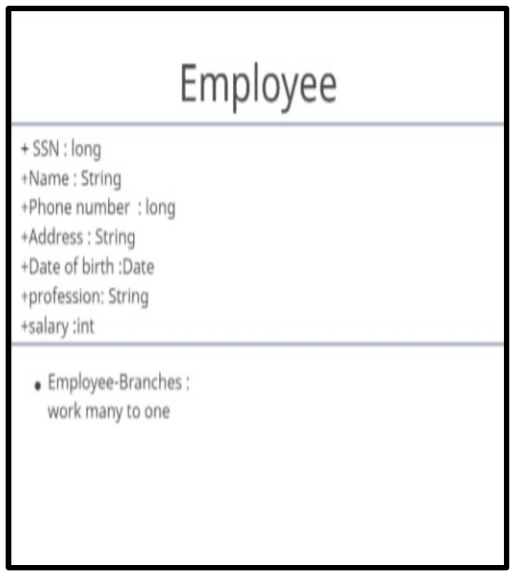
Musician-Song: Many-to-many

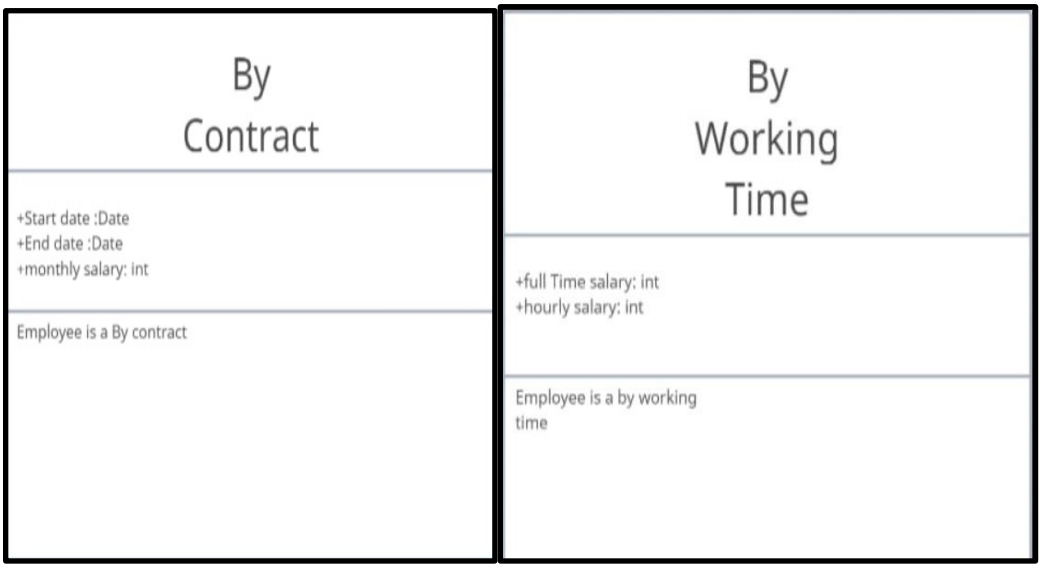
Song-Album: One-to-many

Musician-Album: One-to-many (via the Produces relationship)

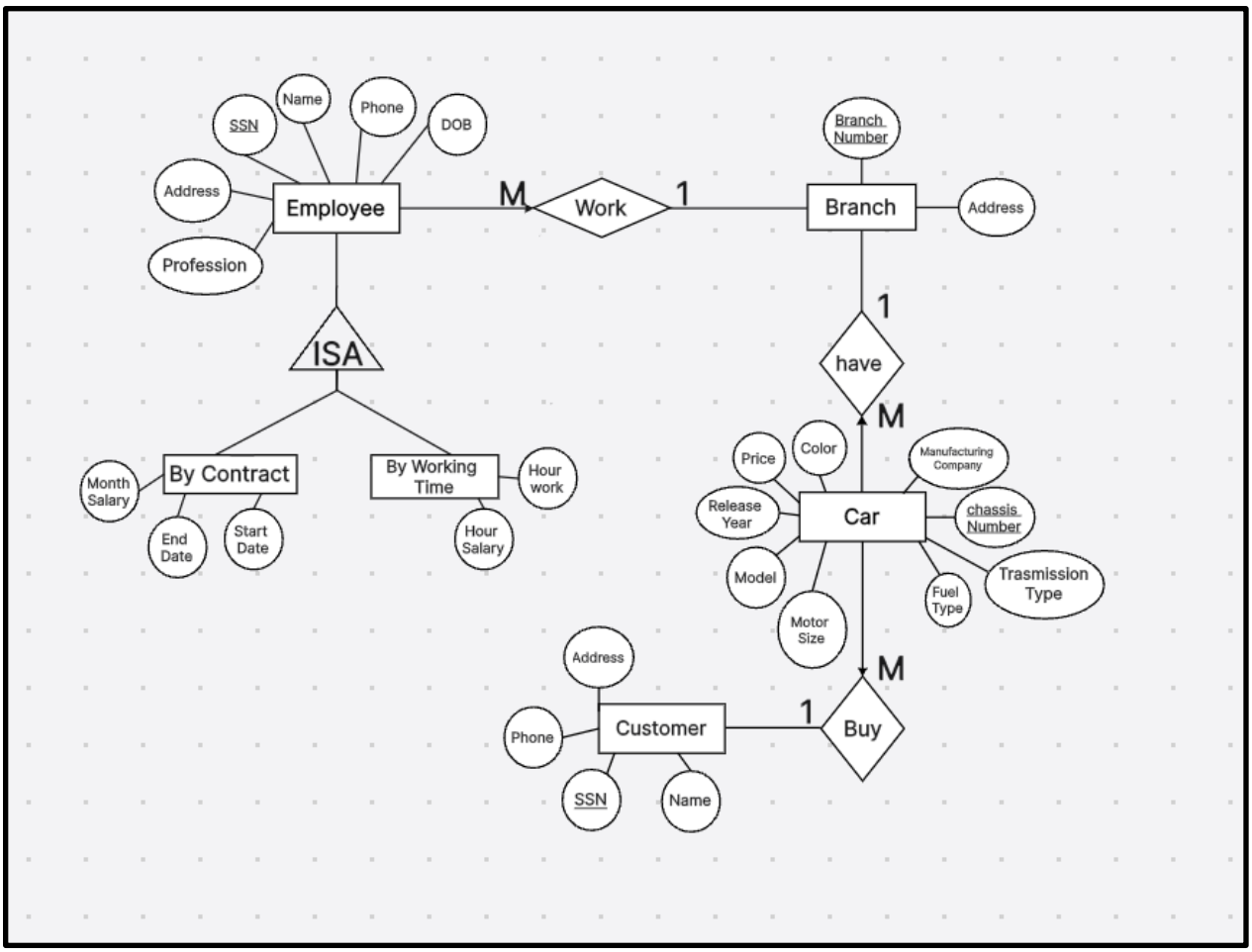
UML




Employee
+ SSN : long
+Name : String
+Phone number : long
+Address : String
+Date of birth :Date
+profession: String
+salary :int
• Employee-Branches :
work many to one


By
Contract
+Start date :Date
+End date :Date
+monthly salary: int
Employee is a By contract
By
Working
Time
+full Time salary: int
+hourly salary: int
Employee is a by working
time

ER Diagram



Technology

For technology we will be using 3 different programming languages in order to achieve the proper look we are looking for.

Backend: python (We will use Flask Library which is crucial as a web library),SQL

Interface : CSS and HTML