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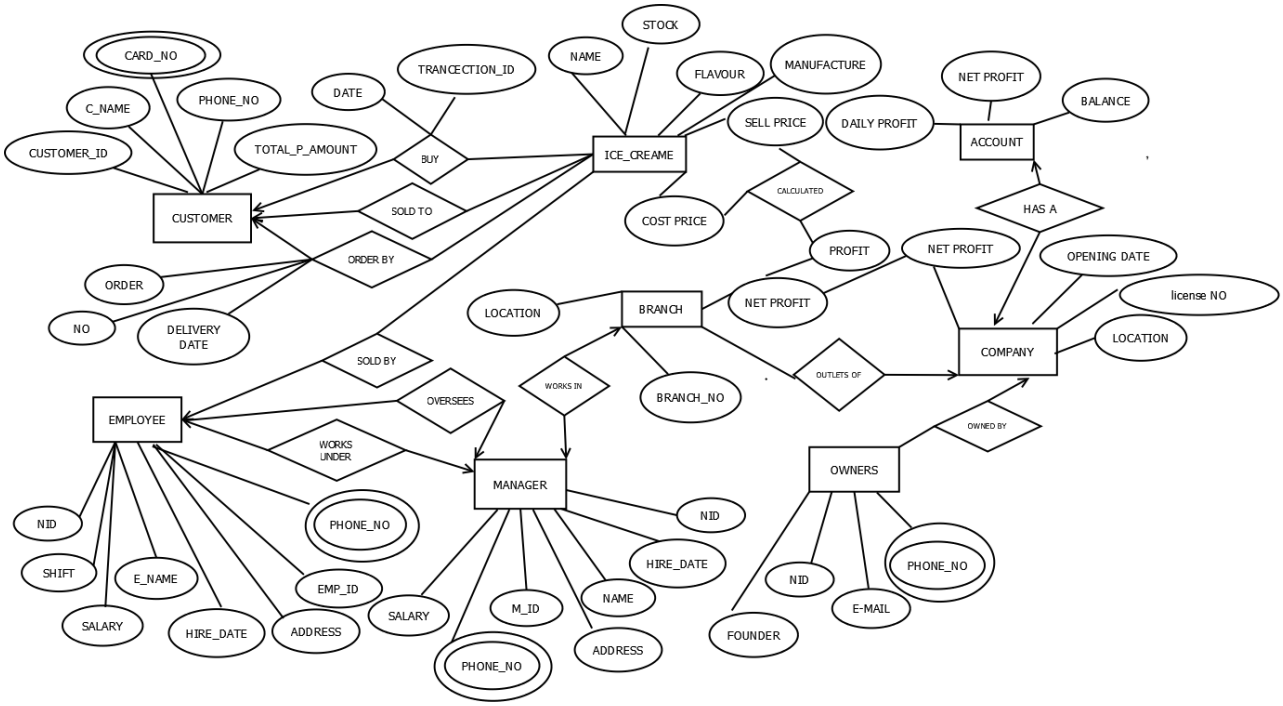
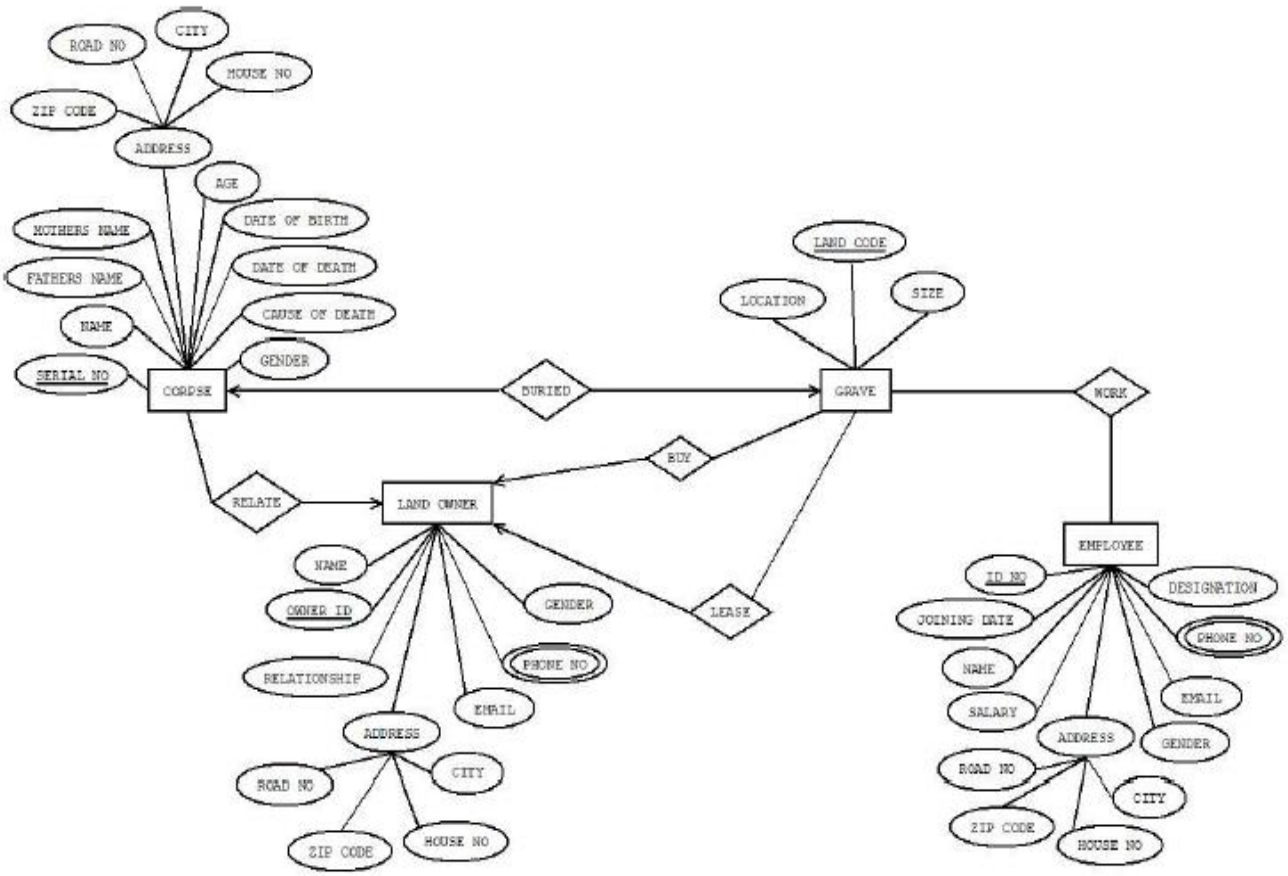
Advance Database Management System Prerequisites II

1. Below a scenario has been given draw the ER Diagram.
   In an Ice-Cream Parlor, a customer may buy or order many ice-creams. Each customer has a unique customer id. Customer data such as customer name, phone number, card no, total purchase amount is also stored in the system. A customer can have multiple cards. An ice-cream can only be sold to or ordered by only one customer. When buying a unique transaction ID and date is stored. When ordering an order, no and delivery date is stored. The ice-creams are identified by their names. The cost price, sell price, profit, stock, flavor, manufacturer information is available in the system. The profit is calculated from the cost price and the sell price. Ice-creams are sold by employees, where each ice cream can be sold by one employee but one employee can sell many ice-creams. Each employee is identified by their own unique employee id. The system also has employee name, shift, salary, hire date, phone no, address, NID stored. Each employee works under only one manager and one manager oversees all employees of a branch. A manager works in only one branch. They have their own unique employee ID and their name, salary, hire date, phone no, address, NID are stored in the database. Managers and employees can have multiple phone numbers. Each branch has one manager. And each branch has a location and is identified by its unique branch no. All branches are outlets of one company. The company has a unique trade license no and opening date and location. Each branch s their own single account and the company has a single account. In the accounts daily profit, net profit and balance are stored. Each of the branches net profit is calculated from the ice-creams profit and the company's net profit is calculated from all of the branches net profit. The whole company is owned by multiple owners. Among the owners there is a founder. Each of the owners are identified by their NID. Other data such as name, phone no and email are also stored in the database. The owners can have multiple phone no.

Answer 1:


CARD_NO
C_NAME
PHONE_NO
CUSTOMER_ID
TOTAL_P_AMOUNT
CUSTOMER
ORDER
NO
DELIVERY DATE
DATE
TRANCECTION_ID
BUY
SOLD TO
ORDER BY
STOCK
NAME
FLAVOUR
MANUFACTURE
ICE_CREAME
SELL PRICE
COST PRICE
CALCULATED
DAILY PROFIT
NET PROFIT
BALANCE
ACCOUNT
HAS A
PROFIT
NET PROFIT
OPENING DATE
license NO
LOCATION
COMPANY
LOCATION
BRANCH
NET PROFIT
BRANCH_NO
OUTLETS OF
SOLD BY
OVERSEES
WORKS IN
EMPLOYEE
WORKS UNDER
MANAGER
OWNED BY
OWNERS
NID
SHIFT
E_NAME
SALARY
HIRE_DATE
ADDRESS
EMP_ID
PHONE_NO
NID
HIRE_DATE
NAME
ADDRESS
M_ID
SALARY
PHONE_NO
NID
E-MAIL
PHONE_NO
FOUNDER

2. Below an ER Diagram has been given write the scenario.



Answer 2:

In a graveyard, a CORPSE may buried in a GRAVE. In one GRAVE ,one CORPSE may buried.Each CORPSE has a unique SERIAL NO. CORPSE data such as NAME,MOTHERS NAME, FATHERS NAME,AGE, DATE OF BIRTH ,DATE OF DEATH, CAUSE OF DATE,GENDER and ADDRESS stored in the system.ZIP CODE, ROAD NO,CITY,HOUSE NO derived from ADDRESS. Each CORPSE buried in a GRAVE and a CORPSE identified by SERIAL NO. GRAVE has information such as LOCATION,SIZE,LAND CODE as unique. Several CORPSE relate to one LAND OWNER. In the system ,LAND OWNER identified by unique OWNER ID .They also have NAME ,GENDER, RELATIONSHIP,E-mail ,PHONE NO and ADDRESS Information. ROAD NO,ZIP CODE,HOUSE NO,CITY derive from LAND OWNER'S ADDRESS. The LAND OWNER can have multiple PHONE NO. One OWNER can buy many GRAVE. One OWNER may lease many GRAVE . For managing the information of GRAVE many EMPLOYEES worked for .EMPLOYEES has a unique ID NO ,DESIGNATION ,JOINING DATE ,NAME ,SALERY ,ADRESS ,GENDER ,E-MAIL ,PHONE NO as data . ROAD NO ,ZIP CODE ,CITY ,HOUSE NO derive from EMPLOYEE'S ADRESS . The EMPLOYEE can have multiple PHONE NO .Many EMPLOYEE work in many GRAVE.