DATABASE DESIGN (S511)

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GUIDED BY: Prof. Kyle Jones

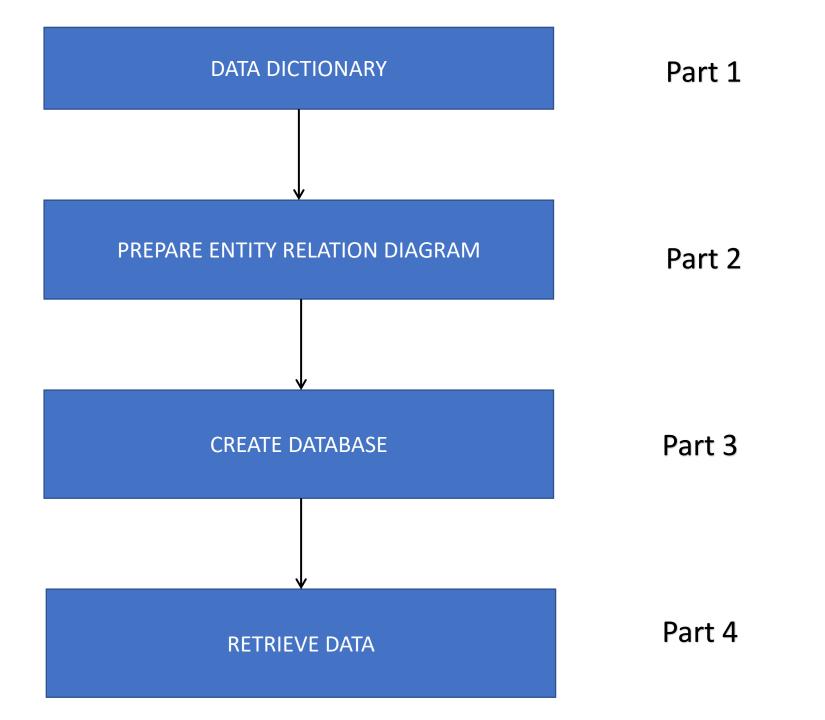
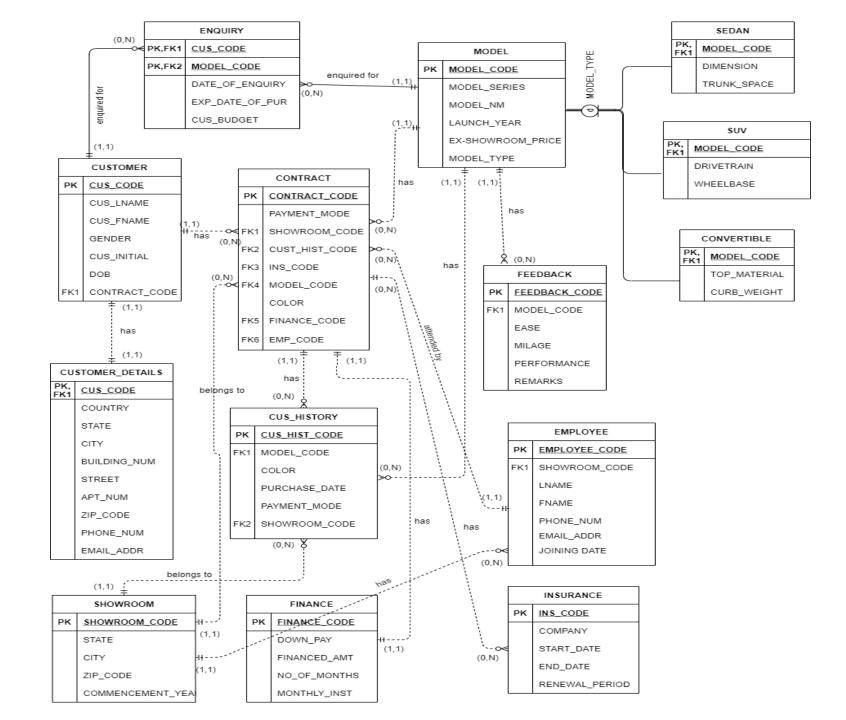




TABLE NAME	ATTRIBUTE NAME	CONTENTS	ТҮРЕ	FORMAT	RANGE	REQUIRED	PK or FK	FK REFERENCED TABLE
CUSTOMER	CUS_CODE CUS_LNAME CUS_FNAME GENDER CUS_INITIAL DOB CONTRACT_CODE	Customer code Customer last name Customer first name Gender Customer initial Date of birth Contract code	INT NVARCHAR(20) NVARCHAR(20) CHAR(1) CHAR(1) DATE INT		0-99999	, , , , ,	PK FK	CONTRACT
CUSTOMER_DETAILS	CUS_CODE COUNTRY STATE CITY BUILDING_NUM STREET APT_NUM ZIP_CODE PHONE_NUM EMAIL_ADDR	Customer code Country name State name City name Building number Street name Apartment number Zip code Phone number Email address	CHAR(5) VARCHAR(20) INT CHAR(6) CHAR(12)	99999 Xxxxxxxx Xxxxxxxx X-999 Xxxxxxxx 9999 Xxxxxxxx 999-999-9999 Xxxxxxxxx	0-9999	, , , , , , ,	PK,FK	CUSTOMER
CONTRACT	CONTRACT_CODE PAYMENT_MODE SHOWROOM_CODE CUST_HIST_CODE INS_CODE MODEL_CODE	Contract code Payment mode Showroom code Customer History code Insurance code Model code	INT VARCHAR(10) INT INT INT INT	99999 XXXXXXXX 99999 99999 99999	0-99999 0-99999 0-99999 0-99999	Y Y	PK FK FK FK FK	SHOWROOM CUS_HISTORY INSURANCE MODEL

Part2: ENTITY RELATIONSHIP DIAGRAM





Important steps in creating database:

1) Create all the required tables with proper constraints.

2) Create relationships between tables.

Objective:

To answer following questions and analyze data.

Part4: RETRIEVE DATA

- 1) How many cars have been sold from showrooms in a particular city?
- 2) How many cars have been sold by all the employees individually?
- 3) Which employee sold the maximum number of cars?
- 4) Which employee sold the maximum number of cars in a particular city?
- 5) How many contracts have been financed in a particular showroom?
- 6) How many enquiries are there in record by a particular customer?
- 7) Which car model is best selling model?

and many more...

1) How many cars have been sold from showrooms in a particular city?

SELECT

COUNT(CONTRACT_CODE) AS TOTAL_SELL

FROM

CONTRACT

INNER JOIN

SHOWROOM

ON

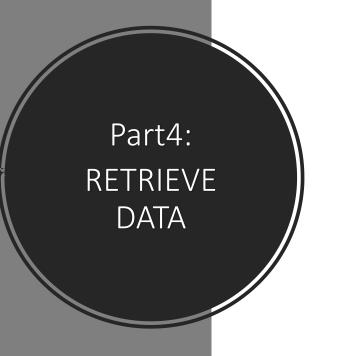
CONTRACT.SHOWROOM_CODE = SHOWROOM.SHOWROOM_CODE

WHERE

SHOWROOM.CITY="Dallas";



2) How many cars have been sold by all the employees individually?



```
SELECT

CONTRACT.EMP_CODE AS E_CODE,

COUNT(CONTRACT_CODE) AS COUNT_OF_SELL

FROM

CONTRACT

GROUP BY

CONTRACT.EMP_CODE;
```

Part4: RETRIEVE DATA

3) Which employee sold the maximum number of cars?

```
SELECT
        E CODE,
        COUNT_OF_SELL
FROM
        (SELECT
               CONTRACT.EMP CODE AS E CODE,
               COUNT(CONTRACT_CODE) AS COUNT_OF_SELL
        FROM
               CONTRACT
        GROUP BY
               CONTRACT.EMP_CODE)
WHERE
        COUNT_OF_SELL = ( SELECT_MAX(COUNT_OF_SELL) AS MAX_SELL FROM
        (SELECT
               CONTRACT.EMP CODE AS E CODE,
               COUNT(CONTRACT_CODE) AS COUNT_OF_SELL
        FROM
               CONTRACT
       GROUP BY
               CONTRACT.EMP CODE));
```

Thank you!

I convey my sincere gratitude to the Prof. Jones for his proper guidance and encouragement on every step of database design. I also want to thank all my classmates for all the discussions through out the course.

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