	Assignment No. 1 **Semester Fall 2022** **Data Warehousing– CS614**	

Question 1 (Marks 10)

Fig. 1 given below reflects the relationship of some specific scenario related with Car-Ownership.

sform the given relations into De-Normalized form and provide the resultant table.

Solution:

As there is one –to-many relationship between owners and car entities, so PRE Joining Tables De normalization techniques will be applied.

The given part of the ERD Map to the following three tables

owner_numb	first_name	last_name	street	city	state	zip	home phone	cellphone

VIN	Make	Model	year	Engine_serial_numb	Owner|_numb

After appling pre _Joining techniques on the above tables corresponding to the given one_to many relationship

The resultant De-normalized table is as follow

Owner_num	first_name	last_name	street	city	state	zip	home phone	Cell phone	VIN	Make	Model	year	Engine_serial_numb

Question 2 (Marks 10)

Consider the following information about Owner and Car tables.

Table1 (Master):

Header Size of the Owner table: =   40 Bytes
Number of records stored in Owner table: =   50000

Table2 (Detail):

Header size Car table: =   60 Bytes
Number of records stored in Car table: =   4000000
Hint: There would be 4000000 records in De-normalize table.

Solution:

The header of resultant DE NORMALIZATUON TABLE = 40+60-8

$$=92Bytes$$

The number of recordes in de –normalized table   = 4000000

Size of the De- Normalized table   = 92*4000000

$$=368000000 \text{ Bytes}$$

Note: to convert bytes in to MB. we need to divide by$(1000)^2$ Or $(1024)^2$

$$=368MB$$

Note: to convert bytes in to GB we need to divide by$(1000)^3$ Or $(1024)^3$

$$=0.368GB$$

Note: to convert bytes in to GB we need to divide by$(1000)^4$ Or $(1024)^4$

$$=0.000368TB$$