

Class Exercise – 3.3

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Clemson/Assignment ID: TRUCK33

Submission: Save this Word document with your answers as a PDF file and upload the PDF file to Canvas.

TransCo Database Tables

Use the database shown to answer the following questions.

Table name: TRUCK

Primary key: TRUCK_NUM

Foreign keys: BASE_CODE, TYPE_CODE

Database name: Ch03_TransCo

TRUCK_NUM	BASE_CODE	TYPE_CODE	TRUCK_MILES	TRUCK_BUY_DATE	TRUCK_SERIAL_NUM
1001	501	1	32123.5	23-Sep-07	AA-322-12212-W11
1002	502	1	76984.3	05-Feb-06	AC-342-22134-Q23
1003	501	2	12346.6	11-Nov-06	AC-445-78656-Z99
1004		1	2894.3	06-Jan-07	WQ-112-23144-T34
1005	503	2	45673.1	01-Mar-06	FR-998-32245-W12
1006	501	2	193245.7	15-Jul-03	AD-456-00845-R45
1007	502	3	32012.3	17-Oct-04	AA-341-96573-Z84
1008	502	3	44213.6	07-Aug-05	DR-559-22189-D33
1009	503	2	10932.9	12-Feb-08	DE-887-98456-E94

Table name: BASE

Primary key: BASE_CODE

Foreign key: none

BASE_CODE	BASE_CITY	BASE_STATE	BASE_AREA_CODE	BASE_PHONE	BASE_MANAGER
501	Murfreesboro	TN	615	123-4567	Andrea D. Gallager
502	Lexington	KY	568	234-5678	George H. Delarosa
503	Cape Girardeau	MO	456	345-6789	Maria J. Talindo
504	Dalton	GA	901	456-7890	Peter F. McAvee

Table name: TYPE

Primary key: TYPE_CODE

Foreign key: none

TYPE_CODE	TYPE_DESCRIPTION
1	Single box, double-axle
2	Single box, single-axle
3	Tandem trailer, single-axle

- For each table, identify the primary key and the foreign key(s). If a table does not have a foreign key, write *None* in the space provided.

- TRUCK
 - Primary key: TRUCK_NUM
 - Foreign Key: BASE_CODE and TYPE_CODE
- BASE
 - Primary Key: BASE_CODE
 - Foreign Key: none
- TYPE
 - Primary Key: TYPE_CODE
 - Foreign Key: none

2. Do the tables exhibit entity integrity? Answer yes or no and then explain your answer.

All of the tables exhibit entity integrity. Each table's entry for the primary keys is unique and not null.

3. Do the tables exhibit referential integrity? Answer yes or no and then explain your answer. Write *NA* (Not Applicable) if the table does not have a foreign key.

The TRUCK table exhibits referential integrity because each of the base codes exists in the BASE table and each of the type codes exists in the type table or they are null. Referential integrity does not apply to the BASE and TYPE tables.

4. Create the ERD for this database.

