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--===============================CIS 310 ASSIGNMENT 2===============================

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SUBMISSION DATE: 1/18/2024

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1. For the database shown below, answer the following 3 questions: (10 pts)

Table name: EMPLOYEE 
11 Mr 
12Mr 
13 Mr 
15 Mr 
16 Mr 
17 Ms 
18 Mr 
19 Mr 
20 Mr. 
Database name: Ch03_StoreC0 
EMP DOB STORE CODE 
EMP CODE 
14 
21 
EMP TITLE EMP LNAME 
2 Ms 
3 Ms 
4" Mrs 
6 Mr 
TMr 
8 Ms 
10 Mrs 
Ms. 
Ms. 
Table name: STORE 
Ailliamson 
Ratula 
Greenboro 
Rumpersfro 
Smth 
Renselaer 
Ogallo 
Johnsson 
Eindsmar 
Jones 
Broderick 
WV-ashington 
Smth 
Smnh 
Olenko 
Archialo 
Grimaldo 
EMP FNAME 
John 
Nancy 
Lottie 
Jennie 
Robert 
Cary 
Roberto 
Elizabeth 
Jack 
Tom 
Alan 
Sherry 
Jeanine 
Rosenberg Andrew 
Rosten 
Mckee 
Baumann 
EMP INITIAL 
s 
s 
s 
REGION_CODE 
21-May-84 
09-Feb-89 
02-oct-81 
01-Jun-91 
23-Nov-79 
25-Dec-85 
31-Jul-82 
10-sep-88 
19-Apr-75 
06-Mar-86 
21-Oct-92 
08-Sep-94 
25-Aug-84 
25-May-86 
24-May-84 
12-Nov-90 
24-Jan-91 
03-oct-88 
06-Mar-90 
11-Dec-94 
3 
2 
4 
3 
3 
2 
4 
3 
2 
3 
4 
5 
5 
4 
4 
4 
3 
STORE_CODE STORE_NAME 
1 Access Junction 
2 Database Corner 
3 Tuple Charge 
4 Attribute Alley 
5 Primary Key Point 
Table name: REGION 
REGION_CODE REGION_DESCRPT 
1 East 
2 •Nest 
peter 
Robert 
Jennifer 
100345576 
1421937.39 
986783.22 
94456856 
2930098.45 
2 
2 
2 
EMP_CODE 
8 
12 
7 
3 
15 

1. For each table, identify the primary key and the foreign key(s) by filling in below table. If a table does not have a foreign key, write *None*.

|  |  |  |
| --- | --- | --- |
| TABLE | Primary Key | Foreign Key(s) |
| EMPLOYEE | EMP\_CODE | STORE\_CODE |
| STORE | STORE\_CODE | EMP\_CODE, REGION\_CODE |
| REGION | REGION\_CODE | None |

1. Do the tables exhibit entity integrity? Answer yes or no, and then explain your answer by filling out below table.

|  |  |  |
| --- | --- | --- |
| TABLE | Entity Integrity | Explanation |
| EMPLOYEE | Yes | Each EMP\_CODE is unique, no duplicates, not null |
| STORE | Yes | Each STORE\_CODE is unique, no duplicates, not null |
| REGION | Yes | EACH REGION\_CODE is unique, no duplicates, not null |

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

|  |  |  |
| --- | --- | --- |
| TABLE | Referential Integrity | Explanation |
| EMPLOYEE | Yes | Each STORE\_CODE references STORE table |
| STORE | No | EMP\_CODE F.K. is unique (one per STORE\_CODE), which contradicts the EMPLOYEE table (many per STORE\_CODE) |
| REGION | N.A. (No F.K.) | N.A. (No F.K.) |

* **2.**  Write the business rules for the relationships you identify in Figure from **Question 1**. (10 pts)
* **-**-\*Hint, there can be more than 1 relationship between 2 entities. Take a closer look at Employee and Store.
  1. Each employee works at only one store
  2. Each store has many employees working
  3. Each store has only one employee managing (presumably, if STORE’s referential integrity is actually valid)
  4. Each store is located in only one region
  5. Each region contains many stores located within
* **3:** Create a full ERD using MS Visio for the database in **Question 1**. All required elements as covered in class must be included for full credit. Other tools such as hand drawn will receive partial credit. (10 pts)   
  A screenshot of a computer program

  Description automatically generated