**ITEC 3200- Relational Database Concepts**

You will work with another student to complete this assignment. Please list the name of the student you worked with. Each student will upload a copy of the assignment to D2L Assignment folder “Relational Database Properties.” If you do not complete it during class, then finish as homework.

Student Name (your name):

Student Name (who you worked with):

1. Examine the table below and identify if this is a relation. Find 3 specific reasons based on the characteristics of a relation from this table to support your answer. Be specific in your responses and refer to the data.

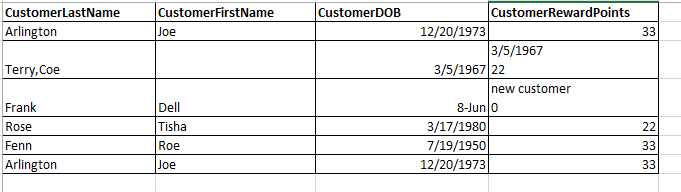


Table shown exibhits properties of relational table (Yes or No): No

|  |
| --- |
| Reason1: Date in CustomerRewardPoints, which is a numerical column |
| Reason2: Two names in CustomerLastName second row |
| Reason3: Duplicate rows (the first and last rows) |

1. Identify the Candidate, Composite and Primary keys listed below for the relation shown below. From the Candidate keys, identify which one you would pick as a primary key.

EMPLOYEE (EmployeeID, LicenseNumber, EmployeeLastName, EmployeeSSN, EmployeeDepartment, EmployeeExtensionNumber)

Assumption/Business Rule: *Each employee has a unique license number within a department. Each employee has a unique ID number.*

Candidate Keys: EmployeeID, EmployeeSSN

Composite Keys: EmployeeDepartment, LicenseNumber

Primary Key (which do you choose): EmployeeID

1. Given the following relation scheme:

PARKING (ParkingID, CarVin, CheckinTime, CheckoutTime)  
 FK CarVin 🡪 CAR

Name of the Table

|  |
| --- |
| PARKING |

How many attributes are there

|  |
| --- |
| 4 |

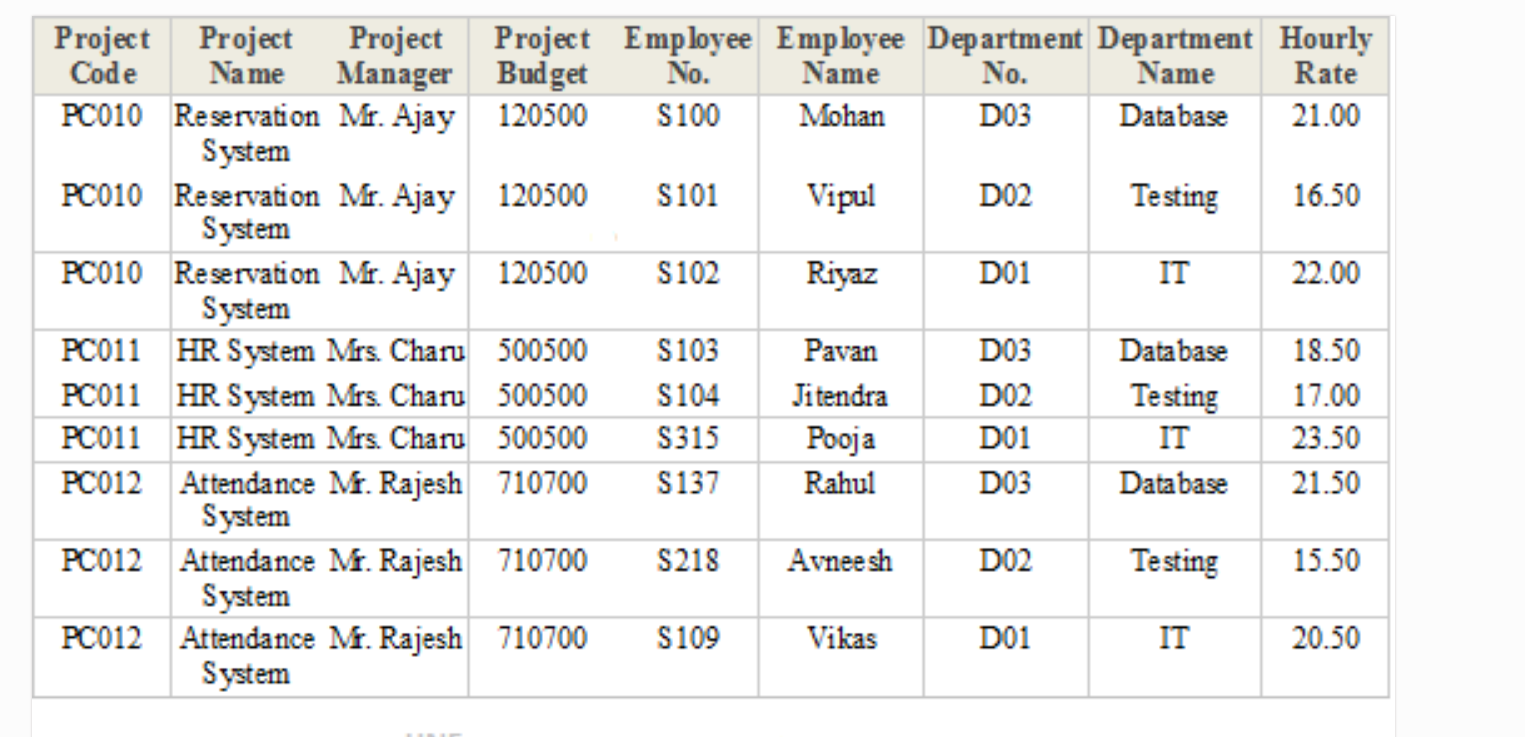
PK

|  |
| --- |
| ParkingID |

FK

|  |
| --- |
| CarVin |

1. Refer to the following list of data



What are the main entities that you can identify?

|  |
| --- |
| Projects, Employees, and Departments |

Is this a the best way to set up a relation? How many entities should be represented in one table?

|  |
| --- |
| No, there should only be one entity per table |

1. Foreign key: A *foreign key* is the way that the relational model implements relationships. In this example, there is a table called CATEGORY, which has the following data (CategoryID is the Primary Key):

| **CATEGORY** | |
| --- | --- |
| **CategoryID** | **Merchandise Category** |
| B | Books and textbooks |
| C | Clothing |
| F | Food and snacks |
| M | Miscellaneous |
| S | Supplies |
| X | Computer Software |

There is another table called MERCHANDISE, which is related to CATEGORY in that there is a 1-Many relationship. Each Category can have many items of merchandise, but each item of Merchandise just has one category.

Modify the MERCHANDISE table below to add a Foreign key, and fill in the correct foreign key value for each item of merchandise.

| MERCHANDISE | | | |  |
| --- | --- | --- | --- | --- |
| **Stock Number** | **Description** | **Qty on Hand** | **Selling Price** | **CategoryID** |
| 0314025863 | Understanding and Using SQL, 3rd edition | 120 | $83.50 | B |
| 0314028803 | Understanding Information Systems, 7th edition | 25 | $98.00 | B |
| 0314934537 | Farmer's Honey Roasted Peanuts | 48 | $2.50 | F |
| 0314998354 | Yellow Notes 2"x3" | 200 | $1.00 | S |
| 0325445122 | Production & Operations Mgt textbook | 45 | $76.00 | B |
| 0338118188 | Deluxe 3-Hole Punch | 125 | $24.00 | S |
| 0339124566 | Soft drink | 200 | $1.50 | F |
| 0345123345 | Microsoft Office Home & Student Edition | 300 | $148.00 | X |
| 1234567890 | GGC Sweatshirt - XL | 8 | $28.95 | C |
| 1234599867 | GGC Baseball Cap | 40 | $9.95 | C |

(Note: Yellow notes and 3-hole punch are considered supplies)

Save your completed class assignment and upload to the **D2L folder Relational Database Properties**. Remember that both students must upload a copy.