**ITEC 3200- Class Assignment Relational Databases**

Student Name:

Class assignments are assigned on a weekly basis. Please ensure to review all the content mentioned in the weekly announcement prior to completing the class assignment. This includes the PPTs and video recordings and other resources posted under the following two content folders in d2l. For this class assignment, please ensure to review the contents under

* Relational Databases Part 1
* Relational Databases Part 2
* Relational Databases Part 3
* Relational Databases Part 4
* Relational Databases Part 5
* Example\_Canindate\_Composite keys

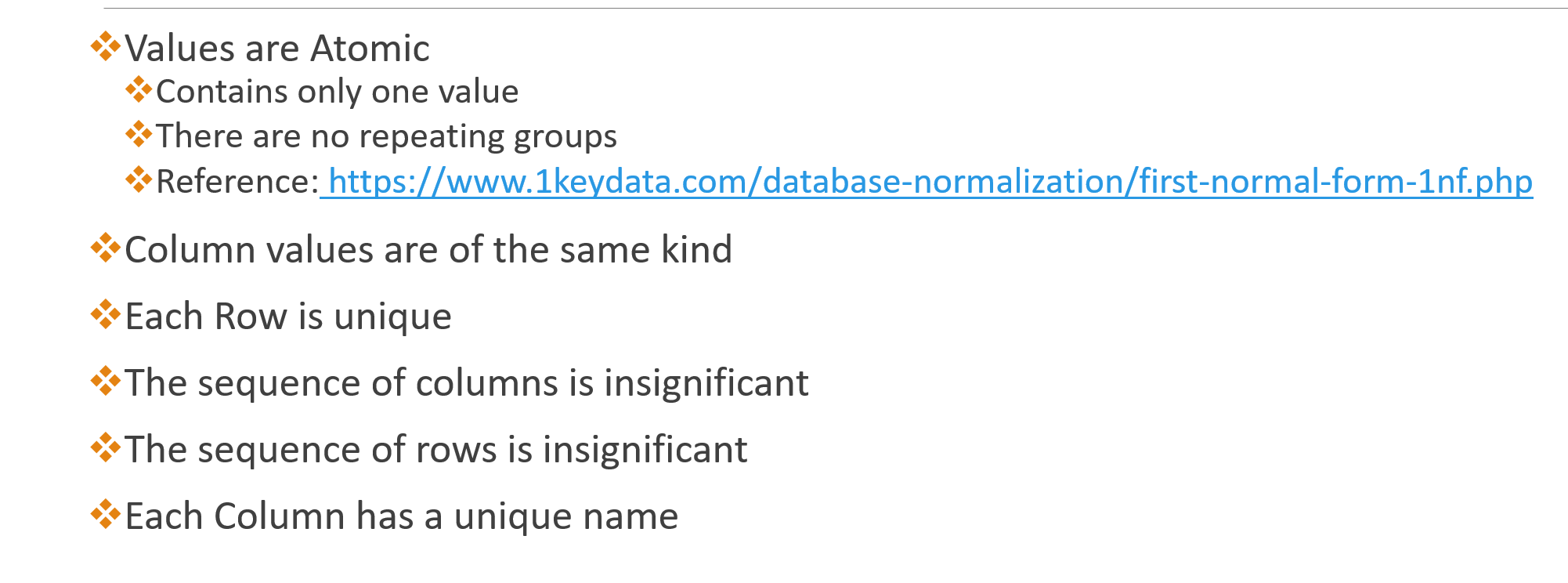
There are four questions in this class assignment. Please ensure to answer them all completely.

The answers for class assignments will be posted the week after. It is the student’s responsibility to review the answers posted to the class assignments. Class assignments are graded for completion so it is a learning opportunity for you. However, grades will be assigned for efforts put in to class assignments. All questions need to be attempted.

1. Provide an example of a Cloud Relational DBMS. Think about the basics of how cloud technologies work. List two advantages and two disadvantages of Cloud DBMS.

|  |
| --- |
| **Amazon Redshift,** **Amazon Relational Database Service, Amazon Aurora, Google Cloud , Microsoft Azure**  Advantages   * Ease of management for a business * Potential cost savings   Disadvantages   * Reliance on external internet connection * Possible security/privacy issues * Challenges with customization |
|  |

1. Refer to the following characteristics of a Relation



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.

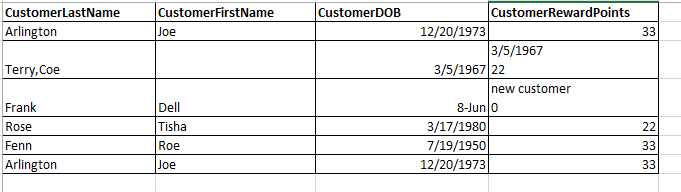


Table shown exhibits properties of relational table (Yes or No):

|  |
| --- |
| Reason1: Not Atomic- Customer last name- Terry, Coe |
| Reason2: Column Values not of the same kind- example Customer DoB |
| Reason3: Duplicate rows- Arlington, Joe |

1. Identify the list of Candidate and Composite keys for the relation listed below. From the Candidate keys, identify which one you would pick as a primary key. Ensure to answer based on the assumptions/business rules provided.

PATIENT (PatientID, SSN, PatientFirstName, PatientLastName, PatientAddress, PatientTaxID).

Assumption/Business Rule: Every patient at the practice is assigned a unique PatientID

List of Candidate keys

1. PatientID
2. SSN
3. PatientITaxID

Identify if there are any composite keys:

No composite key

Which one would you pick as the primary key

PatientID

1. Identify the list of Candidate and Composite keys for the relation listed below. From the Candidate keys, identify which one you would pick as a primary key. Ensure to answer based on the assumptions/business rules provided.

CLIENT (ClientID, ClientSSN, ClientFirstName, ClientLastName, ClientTelphone, FileName, AttorneyID)

Assumption/Business Rule: Every client has a unique client id. The FileName and AttorneyID does not repeat.

List of Candidate keys

1. CleintID
2. FileName, AttorneyID

Identify if there are any composite keys

1. Yes, there is one composite key- FileName, AttorneyID

Which one would you pick as the primary key

ClientID

Please ensure to save and upload the completed document to the d2l class assignment folder-