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Database Management
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2.

Superkey- is simply a non-minimal Candidate Key, that is to say one with additional columns not strictly required to ensure uniqueness of the row (source: google.com)

Candidate Key- is a single field of the least combination of fields that uniquely identifies each record in the table (source: google.com)

Primary Key- is a minimal Candidate Key, which is to say all constituent columns are strictly required in order to ensure uniqueness (source:google.com)

3. Write a Short Essay on Data types. Select a topic for which you might create a table, name the table and list its field(columns). For each field give its data type and whether or not it is nullable.

Humans have always struggled with keeping track of data. Since we found things that were worth keeping track of. with the invention of the computer we found that we were able to store a lot of data without using as much paper, but that required that we learn the way a computer stores information. Some of the common types that data is stored in some languages are int, double, nvarchar. You might want to make a table if you had to track information about a group of people. Maybe students in your class. The table might look something like this

Family name	Given name	Address	Country of residence	CWID()
Smith	Will	123 Ave of the America NYC	USA	200-54-999
Churchill	Winston	12 Downing Street	United Kingdom England	205-73-955

Family Name(nvarchar (30), null

Given Name(nvarchar (30), null

Address (nvarchar (30), null

Country of Residence (nvarchar (30), null

CWID (int, null)

4. Explain the following relational rules with examples and reasons why they are important

1. The **“first normal form” rule**- can be broken down into many requirement

- i. relates to a single table within a relational Database
 - ii. Every column in the table must be unique
 - iii. You should try to avoid repeated data.
 - iv. Separate tables must be created for each set of related data.
 - v. Each table must be identified with a unique column or concatenated columns called the primary key.
- 2. **The “access rows by content only” rule**- This rule implies that there is no order the data inside of rows. That the user simply queries the data and they get what they are looking for.
 - a. Examples:
 - i. If you are looking up someone by name, the in natural an order to the names, Either by who was first added into the system or who was last to be put into the system.
- 3. **The “all rows must be unique rule”**- This rule is designed to help people design an effect database.
 - i. All rows must be unique which mean that two rows can not share the same I.D.
 - ii. If you have a differen rows