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**Research on Telephone Records Database**

Description:

* This is intended on receiving information on the architecture of a database for telephone records.

- Phone Service accounts will have an account ID.

- The ID never changes and is always associated with one person, even after the person

chooses to cancel his/her account.

- A primary phone number is associated with each ID.

- Each account ID can have multiple phone numbers associated with it but there is only one

primary phone number.

- If customers ever call customer service and do not know their ID numbers, they can find it

using their phone numbers.

- There will only be one address associated with each ID.

- Each phone number can be on different data plans. For example:

\* a family of 4 can have two adults and two minors. Let us assume that the dad wants to

have unlimited data for him and his wife but he only wants his kids to have a 2GB plan

in hopes they will not use their phones too much. That is an option that will be available

to customers.

- Customers will always have the option of changing plans for each phone under their account.

- It is possible for customers to acquire new phone numbers. Their old numbers will therefore

be reused by another potential customer but they will still retain their ID.

- All text messages, calls, and voice mails will be recorded and stored in the database. There may be

cases when looking up old text messages may be necessary, such as court cases pertaining

to harassing or threatening messages. We will create a table specifically for this that will

likely not be in BCNF form for the soul purpose of retrieving as much old information as possible.

We need to:

\* keep track of the phone number the customer is interacting with

\* know what date the message was sent

\* know who sent the message

\* know what the message itself is

\* know when the phone number was terminated (if the user or the company made it so)

\* know when account ID the phone number was under.

\* know the address of the ID the phone number was associated with.

\* this table can also be used to see which numbers are currently available.

Potential Queries:

- All phone numbers under one account and their data plans given the ID

- Check available phone numbers

- Search all Deactivated Accounts

- All the text messages from one person

- How much data a customer has used