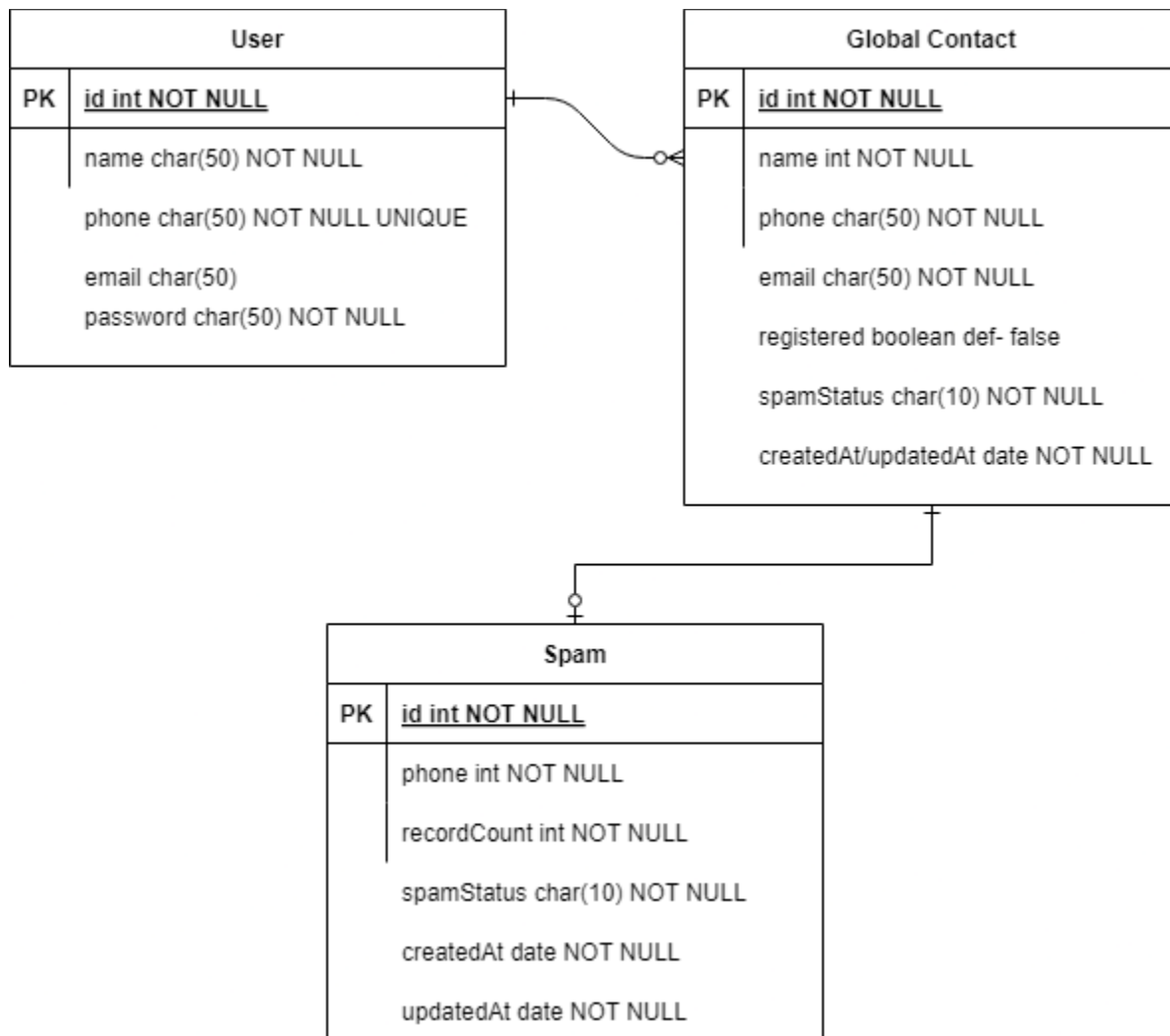


Truld – Digital Caller Guide

Note: Please Note the Application Resets the data that is loaded everytime, since auto-ddl is to set to create-drop, so it drops and creates tables on every startup (Useful for testing)

Schema



DB Design and Important Attributes:

User Table:

Attributes:

- id (Primary Key): Auto generated

- name: Name of the user
- phoneNumber (UniqueKey): Phone number of the user
- password: Encrypted
- email: Email of the User (Optional)

Usage:

1. This table helps in registering new users into the application
2. Helps Authenticating all the APIs, except for auth related apis

Global Contacts Table:

Description: This table contains personal contacts of the all the users who have registered for the application. This can have Duplicated Data. Person 'A' and 'B' can have same person's mobile number, but they may be saved it in a different way.

Attributes:

id (Primary Key) : Auto generated

name: Name of the user

phoneNumber (UniqueKey) : Phone number of the user

email: Email of the User

createdAt/updatedAt- time of creation and updation

spamStatus: Current Spam Status of the number

N - Not a Spam

L - Low probability of a Spam

M - Medium probability of a Spam

H - High probability of a Spam

Usage:

Used to perform Search Queries by Phone Number and Name.

Spam Table:

Description: This Table contains details like spam count, spam status and the respective phone number

Attributes:

id (Primary Key) : Auto generated

phoneNumber (UniqueKey) : Phone number of the user

createdAt/updatedAt- time of creation and updation

spamStatus: Current Spam Status of the number

N - Not a Spam

L - Low probability of a Spam

M - Medium probability of a Spam

H - High probability of a Spam

recordCount: Records counts of how people have reported on that number

Range 0 - 10 Spam Status : N

Range 10 - 24 Spam Status : L (Low)

Range 25 - 50 Spam Status : M (Medium)

Range 50+ Spam Status : H (High)

Usage:

Helps in updating the spam recorded count

Helps in keeping Global Contact List In Sync with spam status

Security of APIs:

- 1) Uses Spring Security to manage all request Lifecycle
- 2) Uses JWT to safely transfer and access data
- 3) Uses Password Encryption for signup/login

Performance of APIs

- 1) Search APIs are paginated, thus making them easier to use.
- 2) Minimal DB calls, DB schema is designed in such a way that reduces that DB calls
Eg: Spam Table operation, is_registered column in global contact

Design Pattern

- 1) Used MVC pattern, with modular packages, segregating core logic for auth and other use cases.

Future Scope and Design Enhancements

- 1) Events can be utilized to implement Contact Syncing process
Eg: Kafka, RabbitMQ, Spring Events
- 2) Caching can be utilized to make search process faster