

Db design for StreetCred

There are two collections namely Users and Watchlists.

Under the Users collection, in a single UserId document there are common fields:

```
birth_year (number)
name (map)
  • first_name (string)
  • last_name (string)
watchlists (map)
  • owned (array)
    ➤ 0 (string)

  • subscribed (array)
    ➤ 0 (string)
```

and an other_user_info subcollection in which a single documents contains the following fields

```
address (map)
  • city (string)
  • country (string)
  • street (string)
  • zipcode (number)
annual_income (string)
citizenship_status (string)
country_of_birth (string)
dob (string)
email_id (string)
employer_info (map)
  • employer_address (string)
  • employer_name (string)
  • job_title (string)
employment_status (string)
funding (string)
investible_or_liquid_assets (string)
net_worth (string)
```

```
phone_number      (number)
visa_details      (map)
  • country_of_citizenship (string)
  • expiration_date  (string)
  • visa_type       (string)
```

Under the Watchlists collection, in a single WatchlistId document there are common fields:

```
isDefault  (boolean)
isDeleted  (boolean)
isForked   (boolean)
isPublished (boolean)
name       (string)
stocks_list (map)
  • 0      (string)
  • 1      (string)
  • 2      (string)
user_id    (string)
```

and a sub collection called history which includes the history of actions made by the owner of watchlists.

The history subcollection contains the following:

```
data (array)
  • 0 (map)
    ➤ action      (string)
    ➤ date/time   (timestamp)
    ➤ description (array)
  ■ 0 (map)
    ➤ name (string)
    ➤ price (number)
```

Standard cases

- User logs in
- Users can create, update, delete, and read their owned watchlists
- Subscribers can either only read the sub watchlist or if they edit the watchlist then the said watchlist will be changed from subscribed watchlist to owned watchlist.
- Users can share owned watchlists with other users.
- Watchlists have a history feature which shows the actions related to watchlist made by the owner.

Edge Cases

- When the user deletes owned watchlist but the subscriber is still subscribed and is watching the same watchlist.
- When the user updates owned watchlist while the subscriber is reading it at the same time.
- If the watchlists should be downloadable or available offline.
- If the user adds the watchlist while the stock details are being updated.
- If the user deletes their account then the watchlists subscribed from that user must be either deleted or changed from subscribed to owned for the subscribers of that user.
- Amount of watchlists to be shown.
- Time zone and daylight saving.

Risk Mitigation

- Users must not be allowed to update anything related to payment.
- Users must not be allowed to manipulate the number of forks, watchlists and subscribers.
- Users must not be unsubscribed before confirming so after clicking on unsubscribe button.
- Subscribers must not be able to read watchlists not subscribed or owned by themselves.