

Project Schema

User

This table is named “User” because it will hold the key information of users that use our service. It will only hold important information that can be used to identify a user, which will be useful when determining what services a user subscribes to and what currency pairs they are interested in. Here is the schema:

User (userID, username, firstName, lastName)

“userID” will be a unique internal ID for each user. “userName” will be the user name of a user, and “firstName” and “lastName” will be the user’s name.

Subscription

This table is called “Subscription” because it will hold the subscription information for each user. It will only hold a user’s subscription and the monthly cost so that we know how many currency pairs to allow them as well as how much to charge them each month.

Subscription (subscriptionID, userID, subscriptionType, monthlyCost)

- Foreign Key userID references User

“subscriptionID” is a unique internal ID. “userID” is the user’s unique internal ID that can be used to join this table with the User table (or vice versa). “subscriptionType” is the type of service the user is subscribed to (as of now we’re only planning on implementing two types, one for five currency pairs per month and the other for unlimited access). “monthlyCost” is the monthly subscription fee that we will charge the user.

Currency Pairs

This table is called “Currency Pairs” because it will hold the name of each currency pair that we can grab historical data for. Users will be shown the available pairs and can decide which ones they want to download data for. When a user chooses a pair to follow, their unique internal ID and the currency pair ID will be stored in the “Pair Followed” table.

Currency Pairs (currencyID, currencyName)

“currencyID” will be a unique internal ID for each currency pair, and “currencyName” will be the actual name of the currency pair (for example, EUR/USD).

Pair Followed

This table is called “Pair Followed” because it will store information about each user and the currency pairs they are following. As mentioned previously, when a user chooses a currency pair that they want to grab historical data for, their unique user ID and the selected currency pair ID will be added to this table so that we know which pairs a user is interested in.

Pair Followed (pairFollowedID, userID, currencyID)

- Foreign Key userID references User
- Foreign Key currencyID references Currency Pairs

“pairFollowedID” is a unique internal ID. “userID” is the user’s unique internal ID and “currencyID” is the unique internal ID of the selected currency pair.

Followed Pairs Left

This table is called “Followed Pairs Left” because it will store information about each user and how many pairs they can follow. The number of available pairs to follow is unlimited for users who have a premium/unlimited subscription, and the number for users with a basic subscription is 5. This number will get reset after each month for basic subscribers. Every time a user with a basic subscription picks a currency pair to follow, this number gets decremented by 1.

Followed Pairs Left (followedPairsLeftID, userID, numPairsAvailable)

- Foreign Key userID references User

“followedPairsLeftID” is a unique internal ID. “userID” is the user’s unique internal ID and “numPairsAvailable” is the number of followed currency pairs the user has left for the month.