

## Tables and Fields

### 1. Tweets Table

This table stores the tweets posted by the CommBank Twitter account.

Field Name	Description	Data Type
tweet_id (PK)	Unique identifier for the tweet (Twitter's tweet ID).	BIGINT
text	The content of the tweet.	VARCHAR(280)
created_at	Timestamp when the tweet was posted.	DATETIME
likes_count	Number of likes the tweet received.	INT
retweets_count	Number of retweets the tweet received.	INT
replies_count	Number of replies the tweet received.	INT
quote_retweets_count	Number of quote retweets the tweet received.	INT

**Primary Key:** tweet\_id

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### 2. Users Table

This table stores information about users who interact with CommBank tweets (e.g., replies, mentions, quote retweets).

Field Name	Description	Data Type
user_id (PK)	Unique identifier for the user (Twitter's user ID).	BIGINT
username	The Twitter handle of the user.	VARCHAR(50)
display_name	The display name of the user.	VARCHAR(100)
followers_count	Number of followers the user has.	INT

verified	Whether the user is verified on Twitter.	BOOLEAN
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**Primary Key:** user\_id

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### 3. Replies Table

This table stores replies to CommBank tweets.

Field Name	Description	Data Type
reply_id (PK)	Unique identifier for the reply (Twitter's tweet ID).	BIGINT
tweet_id (FK)	The tweet to which this is a reply (references Tweets.tweet_id).	BIGINT
user_id (FK)	The user who posted the reply (references Users.user_id).	BIGINT
text	The content of the reply.	VARCHAR(280)
created_at	Timestamp when the reply was posted.	DATETIME
likes_count	Number of likes the reply received.	INT

**Primary Key:** reply\_id

**Foreign Keys:**

- tweet\_id references Tweets.tweet\_id
  - user\_id references Users.user\_id
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### 4. QuoteRetweets Table

This table stores quote retweets of CommBank tweets.

Field Name	Description	Data Type
quote_retweet_id (PK)	Unique identifier for the quote retweet (Twitter's tweet ID).	BIGINT
tweet_id (FK)	The tweet being quote retweeted (references Tweets.tweet_id).	BIGINT
user_id (FK)	The user who posted the quote retweet (references Users.user_id).	BIGINT

text	The content of the quote retweet.	VARCHAR(280)
created_at	Timestamp when the quote retweet was posted.	DATETIME
likes_count	Number of likes the quote retweet received.	INT

**Primary Key:** quote\_retweet\_id

**Foreign Keys:**

- tweet\_id references Tweets.tweet\_id
- user\_id references Users.user\_id

## 5. Mentions Table

This table stores direct mentions of CommBank by users.

Field Name	Description	Data Type
mention_id (PK)	Unique identifier for the mention (Twitter's tweet ID).	BIGINT
user_id (FK)	The user who mentioned CommBank (references Users.user_id).	BIGINT
text	The content of the mention.	VARCHAR(280)
created_at	Timestamp when the mention was posted.	DATETIME
likes_count	Number of likes the mention received.	INT

**Primary Key:** mention\_id

**Foreign Key:**

- user\_id references Users.user\_id

## Relationships Between Tables

1. **Tweets Table** is the central table that stores all tweets posted by CommBank.
2. **Replies Table** is linked to the **Tweets Table** via tweet\_id (a reply is associated with a specific tweet).
3. **QuoteRetweets Table** is linked to the **Tweets Table** via tweet\_id (a quote retweet is associated with a specific tweet).

4. **Mentions Table** is independent of the **Tweets Table** but is linked to the **Users Table** via `user_id` (a mention is made by a specific user).
  5. **Users Table** is linked to all interaction tables (**Replies**, **QuoteRetweets**, **Mentions**) via `user_id`.
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## ER Diagram (Conceptual)

### Tweets

```
-- tweet_id (PK)
-- text
-- created_at
-- likes_count
-- retweets_count
-- replies_count
-- quote_retweets_count
```

### Users

```
-- user_id (PK)
-- username
-- display_name
-- followers_count
-- verified
```

### Replies

```
-- reply_id (PK)
-- tweet_id (FK) -> Tweets.tweet_id
-- user_id (FK) -> Users.user_id
-- text
-- created_at
-- likes_count
```

### QuoteRetweets

```
-- quote_retweet_id (PK)
-- tweet_id (FK) -> Tweets.tweet_id
-- user_id (FK) -> Users.user_id
-- text
-- created_at
-- likes_count
```

### Mentions

```
-- mention_id (PK)
-- user_id (FK) -> Users.user_id
-- text
```

```
|-- created_at  
|-- likes_count
```