





Relation Name	Projected Fds	Key(s)	Normal Form
User	user_id→first_name user_id→last_name user_id→phone_number user_id→date_of_join user_id→username	user_id	BCNF
Profile	username→gender username→profile_picture username→country username→bio username→dob username→age username→user_id	username	BCNF
User Email	∅	user_id,email	BCNF
Post	post_id→user_id post_id→post_time post_id→region post_id→tweet_content post_id→number_of_likes	post_id	BCNF
Retweet	∅	user_id, post_id	BCNF
Follower	∅	user_id,follower_id	BCNF
Followings	∅	user_id,following_id	BCNF
Message	message_id→message_text message_id→time	message_id	BCNF
Messaging	message_id→sender_id message_id→receiver_id	message_id	BCNF

Verified	user_id→is_verified	user_id	BCNF
Tags	∅	Post_id,tag_name	BCNF
Tag Post	∅	tag_name,post_id	BCNF
Advertisements	advert_id→post_id advert_id→minimum_age advert_id→maximum_age advert_id→region	advert_id	BCNF
Comments	comment_id→post_id comment_id→likes comment_id→commentor_id comment_id→comment_content comment_id→comment_time	comment_id	BCNF

### Minimal FD set

#### User

user\_id→first\_name

user\_id→last\_name

user\_id→phone\_number

user\_id→date\_of\_join

user\_id→username

## **Profile**

username→gender

username→profile\_picture

username→country

username→bio

username→dob

username→age

username→user\_id

## **Post**

post\_id→user\_id

post\_id→post\_time

post\_id→region

post\_id→tweet\_content

post\_id→number\_of\_likes

## **Message**

message\_id→message\_text

message\_id→time

## **Messaging**

message\_id→sender\_id

message\_id→receiver\_id

## **Advertisements**

advert\_id→post\_id

advert\_id→minimum\_age

advert\_id→maximum\_age

advert\_id→region

**Comments**

- comment\_id→post\_id
- comment\_id→likes
- comment\_id→commentor\_id
- comment\_id→comment\_content
- comment\_id→comment\_time