TWITTER DATA MANAGEMENT OF USERS IN A REGION

ROLL NO:1602-18-737-066
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ABSTRACT:

In social media, information is present in large amount. Extracting information from social media gives us several usage in various fields. In the field of biomedical and healthcare, extracting information from social media is providing number of benefits such as knowledge about the latest technology, updates of current situation in medical field etc.

Twitter is one of the social media which allows the user post tweets of limited number of characters and share the tweet to their followers. Twitter allows application developer to access the tweets for their purpose .Based on the analysis of comments and reply's people can jump into a conclusion and find a solution to a problem based on user's feedback.

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REQUIREMENTS ANALYSIS:

LIST OF TABLES:

>USERS

>POSTS

>TWEET

>HAS

>FOLLOWING

>HAS_A

>RESPONSE

List of attributes with their domain types:

USERS:

USER_NAME : VARCHAR2(10)

USER_ID :VARCHAR2(10)

MOB_NO : NUMBER(10)

VERIFIED_FLAG : CHAR(1)

EMAIL_ID : VARCHAR2(25)

PASSWORD : VARCHAR2(5)

TWEET:

MESSAGE : VARCHAR2(60)

POLARITY :CHAR(1)

LIKES : NUMBER(4)

TWEET_ID :VARCHAR2(10)

CATEGORY : VARCHAR2(10)

***USERS_TWEET*:**

USER_ID :VARCHAR2(10)

TWEET_ID :VARCHAR2(10)

P_DATE : DATE

FOLLOWING:

F_USER_ID : VARCHAR2(10)

USERS_FOLLOWING:

USER_ID : VARCHAR2(10)

F_USER_ID :VARCHAR2(10)

SINCE : DATE

RESPONSE:

R_USER_ID :VARCHAR2(10)

REPLIED_DATE :DATE

CATEGORY : VARCHAR2(6)

MESSAGE :VARCHAR2(100)

MESSAGE_ID :VARCHAR2(10)

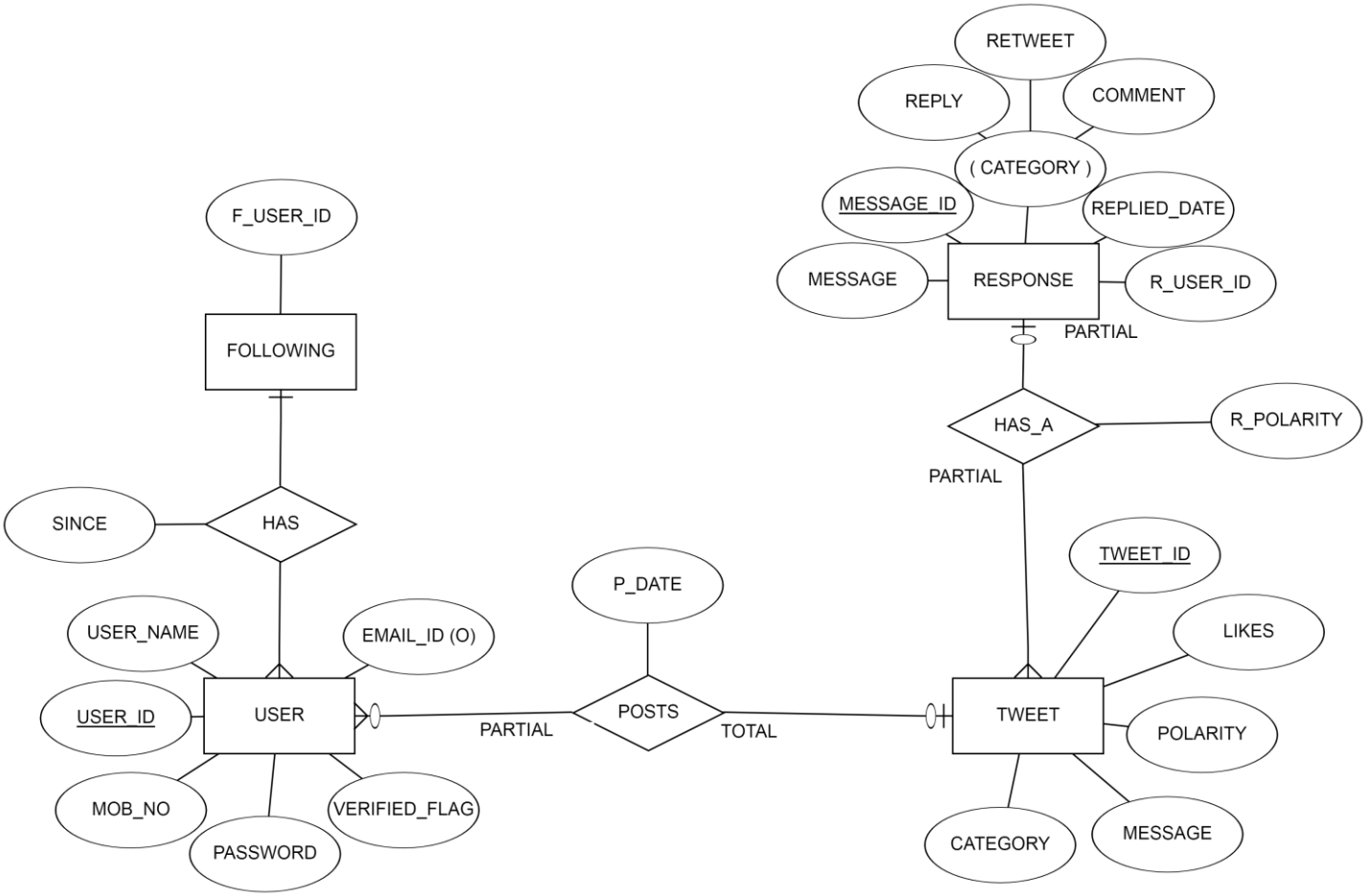
TWEET_RESPONSE:

TWEET_ID :VARCHAR2(10)

MESSAGE_ID :VARCHAR2(10)

R_POLARITY :CHAR(1)

ER DIAGRAM:



Mapping Cardinalities and Participation Constraints:

>One user can post many posts, so one to many cardinality suit posts.

> One user can have many followers, so one to many cardinality suit has.

>A tweet can have many responses, so one to many cardinality

suit has_a.

DDL AND DML COMMANDS:

```
SQL> create table Users(
  2  user_name varchar2(10),
  3  user_id number(5) primary key,
  4  mob_no number(10,0),
  5  verified_flag char(1) check (verified_flag in ('Y','N')),
  6  email_id varchar2(10),
  7  password varchar2(5));
```

Table created.

```
SQL> alter table Users modify(user_id varchar2(10));
```

Table altered.

```
SQL> desc users;
```

Name	Null?	Type
USER_NAME		VARCHAR2(10)
USER_ID	NOT NULL	VARCHAR2(10)
MOB_NO		NUMBER(10)
VERIFIED_FLAG		CHAR(1)

```
EMAIL_ID                                  VARCHAR2(10)

PASSWORD                                  VARCHAR2(5)

SQL> alter table users modify(email_id varchar2(25));

Table altered.

SQL> desc users

 Name                                      Null?                    Type

 ----------------------------------------- --------                 ----------------------------

 USER_NAME                                                          VARCHAR2(10)

 USER_ID                                   NOT NULL                 VARCHAR2(10)

 MOB_NO                                                             NUMBER(10)

 VERIFIED_FLAG                                                      CHAR(1)

 EMAIL_ID                                                           VARCHAR2(25)

 PASSWORD                                                           VARCHAR2(5)

SQL> insert into users
values('&user_name','&user_id',&mob_no,'&verified_flag','&email_id','&password
');

Enter value for user_name: Badrinath

Enter value for user_id: Badri2428

Enter value for mob_no: 9381756470

Enter value for verified_flag: Y
```

Enter value for email_id: badrinath@gmail.com

Enter value for password: Badri2428

old 1: insert into users
values('&user_name','&user_id',&mob_no,'&verified_flag','&email_id','&password
')

new 1: insert into users
values('Badrinath','Badri2428',9381756470,'Y','badrinath@gmail.com','Badri2428')

1 row created.

SQL> /

Enter value for user_name: Abhiraj

Enter value for user_id: Abhi5007

Enter value for mob_no: 9949939007

Enter value for verified_flag: Y

Enter value for email_id: dusariabhiraj@gmail.com

Enter value for password: abcd1234@

old 1: insert into users
values('&user_name','&user_id',&mob_no,'&verified_flag','&email_id','&password
')

new 1: insert into users
values('Abhiraj','Abhi5007',9949939007,'Y','dusariabhiraj@gmail.com','abcd1234
@')

```
1 row created.

SQL> alter table users modify(user_name varchar2(10) not null);

Table altered.

SQL> alter table users modify(mob_no number(10) not null);

Table altered.

SQL> desc users;

 Name                                      Null?                Type
 ----------------------------------------- --------             ----------------------------

 USER_NAME                                 NOT NULL             VARCHAR2(10)

 USER_ID                                   NOT NULL             VARCHAR2(10)

 MOB_NO                                    NOT NULL             NUMBER(10)

 VERIFIED_FLAG                                                  CHAR(1)

 EMAIL_ID                                                       VARCHAR2(25)

 PASSWORD                                                       VARCHAR2(10)

SQL> insert into users
values('&user_name','&user_id','&mob_no','&verified_flag','&email_id','&passwor
d');

Enter value for user_name: Yash

Enter value for user_id: Yash6960

Enter value for mob_no: 8686819973
```

Enter value for verified_flag: N

Enter value for email_id: yasho6960@gmail.com

Enter value for password: 6960118

old 1: insert into users
values('&user_name','&user_id','&mob_no','&verified_flag','&email_id','&password')

new 1: insert into users
values('Yash','Yash6960','8686819973','N','yasho6960@gmail.com','6960118')

1 row created.

SQL> /

Enter value for user_name: pranav

Enter value for user_id: Prana0680

Enter value for mob_no: 9515789639

Enter value for verified_flag: N

Enter value for email_id: pranav23@gmail.com

Enter value for password: pranav23

old 1: insert into users
values('&user_name','&user_id','&mob_no','&verified_flag','&email_id','&password')

new 1: insert into users
values('pranav','Prana0680','9515789639','N','pranav23@gmail.com','pranav23')

1 row created.

```
SQL> /

Enter value for user_name: Varun

Enter value for user_id: bel007

Enter value for mob_no: 8179700761

Enter value for verified_flag: Y

Enter value for email_id:

Enter value for password: varun115

old   1: insert into users
values('&user_name','&user_id','&mob_no','&verified_flag','&email_id','&passwor
d')

new   1: insert into users values('Varun','bel007','8179700761','Y','','varun115')


1 row created.


SQL> select * from users;


USER_NAME  USER_ID       MOB_NO       V      EMAIL_ID                PASSWORD

----------         ----------         ----------         -    -------------------------         ----------

Badrinath      Badri2428     9381756470   Y    badrinath@gmail.com      Badri2428

Abhiraj        Abhi5007      9949939007   Y dusariabhiraj@gmail.com   abcd1234@
```

Yash Yash6960 8686819973 N yasho6960@gmail.com 6960118

pranav Prana0680 9515789639 N pranav23@gmail.com pranav23

Varun bel007 8179700761 Y Varun115

```
SQL> create table tweet
  2  (
  3  message varchar2(60),
  4  polarity char(1) check (polarity in ('P','N')),
  5  likes number(4,0),
  6  tweet_id varchar2(10),
  7  twote_date date,
  8  category varchar2(10));
```

Table created.

```
SQL> alter table tweet add(primary key(tweet_id));
```

Table altered.

```
SQL> alter table tweet drop(twote_date);
```

Table altered.

SQL> desc tweet;

Name	Null?	Type
MESSAGE		VARCHAR2(60)
POLARITY		CHAR(1)
LIKES		NUMBER(4)
TWEET_ID	NOT NULL	VARCHAR2(10)
CATEGORY		VARCHAR2(10)

SQL> insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category');

Enter value for message: A new dawn,fresh vigour and renewed hope in Assam!.

Enter value for polarity: P

Enter value for likes: 4024

Enter value for tweet_id: TY1456278

Enter value for category: Social

```
old   1: insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category')

new   1: insert into tweet values('A new dawn,fresh vigour and renewed hope in
Assam!.','P',4024,'TY1456278','Social')


1 row created.


SQL> /

Enter value for message: Strolling in sidney.

Enter value for polarity: P

Enter value for likes: 1234

Enter value for tweet_id: Tx129674

Enter value for category: Fun

old   1: insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category')

new   1: insert into tweet values('Strolling in sidney.','P',1234,'Tx129674','Fun')


1 row created.


SQL> insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category');
```

Enter value for message: Sending my best wishes to the Indian U19 Cricket team ahead of their world cup final.

Enter value for polarity: P

Enter value for likes: 9876

Enter value for tweet_id: QW189528

Enter value for category: Sports

old 1: insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category')

new 1: insert into tweet values('Sending my best wishes to the Indian U19 Cricket team ahead of their world cup

final.','P',9876,'QW189528','Sports')

1 row created.

SQL> /

Enter value for message: Stronger together.Happy Republic Day to all of us.

Enter value for polarity: P

Enter value for likes: 9123

Enter value for tweet_id: QP196328

Enter value for category: Social

old 1: insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category')

new 1: insert into tweet values('Stronger together.Happy Republic Day to all of us.','P',9123,'QP196328','Social')

1 row created.

SQL> /

Enter value for message: In such a massive country like India,only 2200 people have declared their annual income over 1cr.

Enter value for polarity: N

Enter value for likes: 1450

Enter value for tweet_id: AS190634

Enter value for category: Social

old 1: insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category')

new 1: insert into tweet values('In such a massive country like India,only 2200 people have declared their annual income

over 1cr.','N',1450,'AS190634','Social')

SQL> /

Enter value for message: The ganga is at the heart of our civilisation.I am glad you spent time in varanasi @Yasho.

Enter value for polarity: P

Enter value for likes: 7803

Enter value for tweet_id: ZX678310

Enter value for category: Fun

old 1: insert into tweet
values('&message','&polarity',&likes,'&tweet_id','&category')

new 1: insert into tweet values('The ganga is at the heart of our civilisation.I am glad you spent time in varanasi

@Yasho.','P',7803,'ZX678310','Fun')

1 row created.

SQL> select message,tweet_id from tweet;

MESSAGE	TWEET_ID
A new dawn,fresh vigour and renewed hope in Assam!.	TY1456278
Strolling in sidney.	Tx129674

Sending my best wishes to the Indian U19 Cricket team ahead of their world cup final. QW189528

Stronger together.Happy Republic Day to all of us. QP196328

In such a massive country like India,only 2200 people have declared their annual income over 1cr AS190634

The ganga is at the heart of our civilisation.I am glad you spent time in varanasi @Yasho6960. ZX678310

6 rows selected.

SQL> select tweet_id,polarity,likes,category from tweet;

TWEET_ID	P	LIKES	CATEGORY
TY1456278	P	4024	Social
Tx129674	P	1234	Fun
QW189528	P	9876	Sports
QP196328	P	9123	Social
AS190634	N	1450	Social
ZX678310	P	7803	Fun

6 rows selected.

```
SQL> create table posts(
  2  user_id varchar2(10)  references users(user_id),
  3  tweet_id varchar2(10) references tweet(tweet_id),
  4  p_date date);
```

Table created.

```
SQL> insert into posts values('&user_id','&tweet_id', '&p_date');
Enter value for user_id: Badri2428
Enter value for tweet_id: TY1456278
Enter value for p_date: 22-JAN-2018
old   1: insert into posts values('&user_id','&tweet_id', '&p_date')
new   1: insert into posts values('Badri2428','TY1456278', '22-JAN-2018')
```

1 row created.

```
SQL> /
Enter value for user_id: Badri2428
```

Enter value for tweet_id: ZX678310

Enter value for p_date: 09-AUG-2010

old 1: insert into posts values('&user_id','&tweet_id', '&p_date')

new 1: insert into posts values('Badri2428','ZX678310', '09-AUG-2010')

1 row created.

SQL> /

Enter value for user_id: Yash6960

Enter value for tweet_id: Tx129674

Enter value for p_date: 24-DEC-2017

old 1: insert into posts values('&user_id','&tweet_id', '&p_date')

new 1: insert into posts values('Yash6960','Tx129674', '24-DEC-2017')

1 row created.

SQL> /

Enter value for user_id: Abhi5007

Enter value for tweet_id: QW189528

Enter value for p_date: 14-FEB-2018

old 1: insert into posts values('&user_id','&tweet_id', '&p_date')

new 1: insert into posts values('Abhi5007','QW189528', '14-FEB-2018')

1 row created.

SQL> /

Enter value for user_id: Prana0680

Enter value for tweet_id: QP196328

Enter value for p_date: 26-JAN-2020

old 1: insert into posts values('&user_id','&tweet_id', '&p_date')

new 1: insert into posts values('Prana0680','QP196328', '26-JAN-2020')

1 row created.

SQL> /

Enter value for user_id: bel007

Enter value for tweet_id: AS190634

Enter value for p_date: 22-JAN-2019

old 1: insert into posts values('&user_id','&tweet_id', '&p_date')

new 1: insert into posts values('bel007','AS190634', '22-JAN-2019')

1 row created.

SQL> alter table posts add(primary key(user_id,tweet_id));

Table altered.

SQL> desc posts;

Name	Null?	Type
USER_ID	NOT NULL	VARCHAR2(10)
TWEET_ID	NOT NULL	VARCHAR2(10)
P_DATE		DATE

SQL> select * from posts;

USER_ID	TWEET_ID	P_DATE
Badri2428	TY1456278	22-JAN-18
Badri2428	ZX678310	09-AUG-10
Yash6960	Tx129674	24-DEC-17

```
Abhi5007            QW189528              14-FEB-18

Prana0680           QP196328              26-JAN-20

bel007              AS190634              22-JAN-19

6 rows selected.


SQL> create table following(

  2  f_user_id references users(user_id));

Table created.


SQL> desc following;

 Name                          Null?    Type

 ----------------------------------------- -------- ----------------------------

 F_USER_ID                               VARCHAR2(10)


SQL> insert into following values('&f_user_id');

Enter value for f_user_id: Badri2428

old   1: insert into following values('&f_user_id')

new   1: insert into following values('Badri2428')

1 row created.
```

```
SQL> /

Enter value for f_user_id: Abhi5007

old   1: insert into following values('&f_user_id')

new   1: insert into following values('Abhi5007')


1 row created.


SQL> /

Enter value for f_user_id: Yash6960

old   1: insert into following values('&f_user_id')

new   1: insert into following values('Yash6960')


1 row created.


SQL> /

Enter value for f_user_id: Prana0680

old   1: insert into following values('&f_user_id')

new   1: insert into following values('Prana0680')


1 row created.
```

```
SQL> /
Enter value for f_user_id: bel007
old   1: insert into following values('&f_user_id')
new   1: insert into following values('bel007')

1 row created.

SQL> create table has(
  2  user_id varchar2(10),
  3  f_user_id varchar2(10),
  4  since date);

Table created.

SQL> alter table has add(foreign key(user_id) references users);

Table altered.

SQL> desc has;
```

```
Name                                      Null?    Type
----------------------------------------- -------- ----------------------------
USER_ID                                            VARCHAR2(10)
F_USER_ID                                          VARCHAR2(10)
SINCE                                              DATE
```

```
SQL> insert into has values('&user_id','&f_user_id','&since');
Enter value for user_id: Badri2428
Enter value for f_user_id: bel007
Enter value for since: 12-JUL-2019
old   1: insert into has values('&user_id','&f_user_id','&since')
new   1: insert into has values('Badri2428','bel007','12-JUL-2019')

1 row created.

SQL> /
Enter value for user_id: Badri2428
Enter value for f_user_id: Yash6960
Enter value for since: 27-DEC-2016
old   1: insert into has values('&user_id','&f_user_id','&since')
```

new 1: insert into has values('Badri2428','Yash6960','27-DEC-2016')

1 row created.

SQL> /

Enter value for user_id: Abhi5007

Enter value for f_user_id: Badri2428

Enter value for since: 11-JAN-2001

old 1: insert into has values('&user_id','&f_user_id','&since')

new 1: insert into has values('Abhi5007','Badri2428','11-JAN-2001')

1 row created.

SQL> /

Enter value for user_id: Abhi5007

Enter value for f_user_id: Prana0680

Enter value for since: 12-NOV-2017

old 1: insert into has values('&user_id','&f_user_id','&since')

new 1: insert into has values('Abhi5007','Prana0680','12-NOV-2017')

```
1 row created.

SQL> /
Enter value for user_id: Yash6960
Enter value for f_user_id: Badri2428
Enter value for since: 17-FEB-2014
old   1: insert into has values('&user_id','&f_user_id','&since')
new   1: insert into has values('Yash6960','Badri2428','17-FEB-2014')

1 row created.

SQL> /
Enter value for user_id: Prana0680
Enter value for f_user_id: Abhi5007
Enter value for since: 12-SEP-2019
old   1: insert into has values('&user_id','&f_user_id','&since')
new   1: insert into has values('Prana0680','Abhi5007','12-SEP-2019')

1 row created.
```

```
SQL> select * from has;

USER_ID       F_USER_ID     SINCE
----------          ----------        ---------
Badri2428     bel007        12-JUL-19
Badri2428     Yash6960      27-DEC-16
Abhi5007      Badri2428     11-JAN-01
Abhi5007      Prana0680     12-NOV-17
Yash6960      Badri2428     17-FEB-14
Prana0680     Abhi5007      12-SEP-19
6 rows selected.

SQL> create table response
  2  (
  3  r_user_id varchar2(10) references users(user_id),
  4  replied_date date,
  5  category varchar2(6),
  6  meassage varchar2(100),
  7  message_id varchar2(10));
Table created.
```

```
SQL> alter table response rename column meassage to message;

Table altered.


SQL> alter table response add(primary key(message_id));

Table altered.


SQL> desc response;
 Name                          Null?                Type
 ----------------------------- --------             ----------------------------
 R_USER_ID                                          VARCHAR2(10)
 REPLIED_DATE                                       DATE
 CATEGORY                                           VARCHAR2(6)
 MESSAGE                                            VARCHAR2(100)
 MESSAGE_ID                    NOT NULL             VARCHAR2(10)


SQL> insert into response
values('&r_user_id','&replied_date','&category','&message','&message_id');

Enter value for r_user_id: Prana0680

Enter value for replied_date: 12-FEB-2020
```

Enter value for category: Reply

Enter value for message: Yeah its shocking.

Enter value for message_id: QW12345

old 1: insert into response
values('&r_user_id','&replied_date','&category','&message','&message_id')

new 1: insert into response values('Prana0680','12-FEB-2020','Reply','Yeah its shocking.','QW12345')

1 row created.

SQL> /

Enter value for r_user_id: Yash6960

Enter value for replied_date: 11-FEB-2020

Enter value for category: REPLY

Enter value for message: Yeah! It was awfull.

Enter value for message_id: QN18756

old 1: insert into response
values('&r_user_id','&replied_date','&category','&message','&message_id')

new 1: insert into response values('Yash6960','11-FEB-2020','REPLY','Yeah! It was awfull.','QN18756')

1 row created.

SQL> select r_user_id,replied_date,category,message_id from response;

R_USER_ID REPLIED_D CATEGO MESSAGE_ID

---------- --------- ------ ----------

Prana0680 12-FEB-20 Reply QW12345

Yash6960   11-FEB-20 REPLY QN18756

SQL> select message,message_id from response;

MESSAGE   MESSAGE_ID

-- ----------

Yeah its shocking   QW12345

Yeah! It was awfull.   QN18756

SQL> create table has_a (

  2 tweet_id varchar2(10) references tweet(tweet_id),

  3 message_id varchar2(10) references response(message_id),

  4 r_polarity char(1));

Table created.

SQL> desc has_a

Name	Null?	Type
TWEET_ID		VARCHAR2(10)
MESSAGE_ID		VARCHAR2(10)
R_POLARITY		CHAR(1)

SQL> insert into has_a values('&tweet_id','&message_id','&r_polarity');

Enter value for tweet_id: AS190634

Enter value for message_id: QW12345

Enter value for r_polarity: P

old 1: insert into has_a values('&tweet_id','&message_id','&r_polarity')

new 1: insert into has_a values('AS190634','QW12345','P')

1 row created.

SQL> /

```
Enter value for tweet_id: ZX678310

Enter value for message_id: QN18756

Enter value for r_polarity: P

old   1: insert into has_a values('&tweet_id','&message_id','&r_polarity')

new   1: insert into has_a values('ZX678310','QN18756','P')


1 row created.


SQL> select * from has_a;


TWEET_ID   MESSAGE_ID R

---------- ---------- -

AS190634   QW12345    P

ZX678310   QN18756    P


TNAME                          TABTYPE       CLUSTERID

-----------------------------  -------       ----------

FOLLOWING                      TABLE

HAS                            TABLE

HAS_A                          TABLE
```

```
POSTS                          TABLE

RESPONSE                       TABLE

TWEET                          TABLE

USERS                          TABLE


7 rows selected.

SQL> rename has to users_following;

Table renamed.


SQL> desc users_following;

 Name                                      Null?    Type

 --------------------------------- -------- --------------------

 USER_ID                                            VARCHAR2(10)

 F_USER_ID                                          VARCHAR2(10)

 SINCE                                                  DATE


SQL> rename posts to users_tweet;

Table renamed.


SQL> desc users_tweet;
```

Name	Null?	Type
USER_ID	NOT NULL	VARCHAR2(10)
TWEET_ID	NOT NULL	VARCHAR2(10)
P_DATE		DATE

SQL> rename has_a to tweet_response;

Table renamed.

SQL> select * from tab;

TNAME	TABTYPE	CLUSTERID
FOLLOWING	TABLE	
RESPONSE	TABLE	
TWEET	TABLE	
TWEET_RESPONSE	TABLE	
USERS	TABLE	
USERS_FOLLOWING	TABLE	

USERS_TWEET TABLE

7 rows selected.