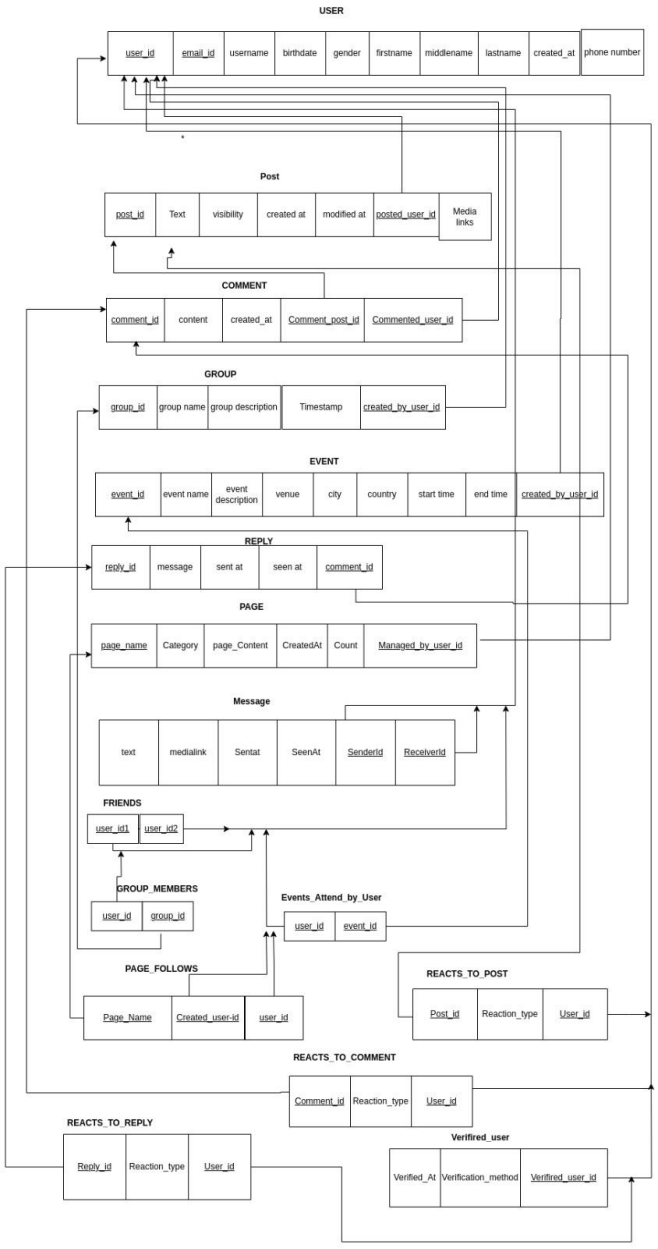
Team-12

PROJECT PHASE -3

Mapping ER to relational models:

Diagram: The image is for ER to Relational model



Modifications:

1)Basically we followed the steps in in the textbook to convert the ER to relational model.

2)When converting reacts to quaternary relation from ER diagram to Relational model we spitted it into 3 different tables (they may not look same so, don't confuse).

3) Added simple attributes of Composite attributes in the table, replacing original attribute.

Diagram: Relational Model to 1NF:

Modifications:

1)Added separate tables for multivalued attributes.

2) Basically we followed the steps in in the textbook to convert the ER to relational model. We removed all multi-valued attributes and there are no nested relations.

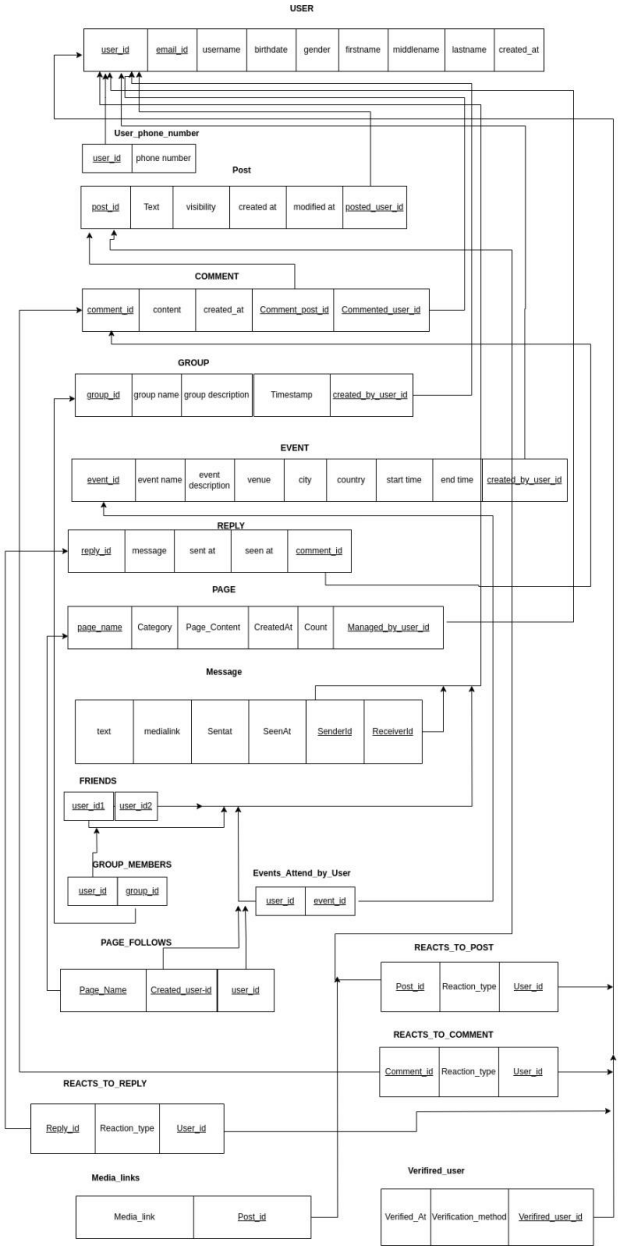
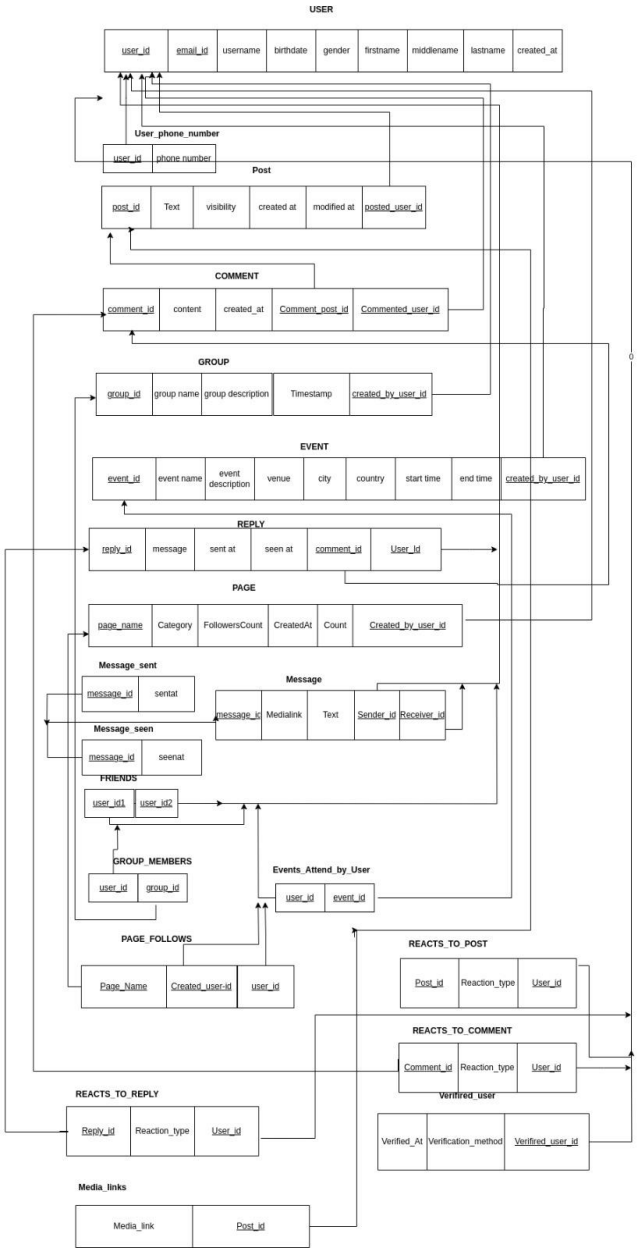

USER
user_id
email_id
username
birthdate
gender
firstname
middlename
lastname
created_at
User_phone_number
user_id
phone number
Post
post_id
Text
visibility
created at
modified at
posted_user_id
COMMENT
comment_id
content
created_at
Comment_post_id
Commented_user_id
GROUP
group_id
group name
group description
Timestamp
created_by_user_id
EVENT
event_id
event name
event description
venue
city
country
start time
end time
created_by_user_id
REPLY
reply_id
message
sent at
seen at
comment_id
PAGE
page_name
Category
Page_Content
CreatedAt
Count
Managed_by_user_id
Message
text
medialink
Sentat
SeenAt
SenderId
ReceiverId
FRIENDS
user_id1
user_id2
GROUP_MEMBERS
user_id
group_id
Events_Attend_by_User
user_id
event_id
PAGE_FOLLOWS
Page_Name
Created_user-id
user_id
REACTS_TO_POST
Post_id
Reaction_type
User_id
REACTS_TO_COMMENT
Comment_id
Reaction_type
User_id
REACTS_TO_REPLY
Reply_id
Reaction_type
User_id
Media_links
Media_link
Post_id
Verifired_user
Verified_At
Verification_method
Verifired_user_id

Diagram:NF1 to NF2 conversion this is same as NF3 in our case



Modifications:

1)In message table we have two primary keys .Since seenat only depends on receiver and sendat only depends on user so here we had a partial dependencies to eliminate this we introduced two new tables(with message_id,sentat and messageid, seenat) and modifies the message table by adding message_id and removing sentat,seenat which eliminate partial dependencies.

2)There were no transitive dependencies in 2NF so it became our 3NF with no modifications.

Final Assumptions/Modifications:

1)We are assuming Page_name as a partial key to Page attribute (it was not taken care previously).

2)In ER diagram for comminicates(identifying relationship b/w user and message) we wrote (1,N) instead of (1,1) for message.

3)Do not confuse between media_link(Simple attribute) in Message with media_links(Multi-valued-attribute) in POST both are different.

4)We followed textbook while drawing all the relational models.

Final Conclusion:

There are a total of 3 diagrams in our report where

1st Diagram – Relational Model

2nd Diagram – 1NF

3rd Diagram – 2NF Same as 3NF