To begin with, we take all our required attributes in a single table.

• Here, User_ID is the primary Key.

User_ID	Name	Email	Pass	word	Picture	Bio		No_follo	wers	No_Top	oics_Follo	wed	
Question_	ID C	uestion_Na	ime	Q_Tim	estamp	No.	_An	swers	N	o_Topics	Ans	wer_	ID
Answer_Na	ime A_	Timestamp	No	_Comme	ents N	o_Upvo	otes	No_Do	wnvo	tes Comn	nent_ID	Cor	nment
C_Timestamp	Topic_ID	Topic_Name	Topic_[Description	No_foll	owers	No	_Questions		Upvote_ID	Downvo	te_ID	User2_ID

From 1NF we know that it disallows multivalued, composite and nested attributes. So after applying 1NF, our tables would look like: (given below)

User_ID	Name	Email	Password	Picture	Bio	No_followers	No_Topics_Followed

User Table

Topic_ID	Question_ID	Question_name	No_Answers	No_Topics	Timestamp

Question table

Answer_ID User_ID Qu	uestion_ID Answer_Name	No_Comments	No_Upvotes	No_Downvotes	Timestamp
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Answer table

- Topic_Name Topic_Bescription No_Pollowers No_Questions	Us	er_ID	Topic _ID	Topic_Name	Topic_Description	No_Followers	No_Questions
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Topic Table

User_ID	Comment _ID	Answer_ID	Comment	Timestamp
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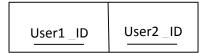
Comment table

Upvote _ID	User _ID	Answer_ID

Upvote Table

Downvote _ID	User_ID	Answer_ID

Downvote Table



Follower-Following table

Now we apply 2NF to the tables.

2NF: A relation schema R is in second normal form (2NF) if every non-prime attribute A in R is fully functionally dependent on the primary key. So applying 2NF to the above given two tables we reach the following conclusions:

- Here, User table, Answer table, Comment Table, Upvote table, Downvote table, Follower-Following table are already in 2NF.
- In case of Question table, Question_Name, Timestamp, No_Followers, No_Topics can be obtained from just Question_ID. Hence this table is not in 2NF.
- In case of Topic Table, Topic_Name, Topic_Description, No_Followers, No_Topics can be obtained from just Topic_ID. Hence this table is not in 2NF.

After applying 2NF to the Question table, we get

Question_ID Questi	ion_name No_Answers	No_Topics Times	tamp User_id
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Question table

Topic _ID	Question _ID

Topic-Question Table

After applying 2NF to the Topic table, we get

Topic _ID	Topic_Name	Topic_Description	No_Followers	No_Questions
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Topic Table

User_ID	Topic _ID
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Follower-Topic Table

Now, Question and Topic Table are in 2NF form.

Next, we apply 3NF on these. A relation schema R is in third normal form (3NF) if it is in 2NF and no non-prime attribute A in R is transitively dependent on the primary key.

• We observe from the above tables that all the tables are already in 3NF form and no non-prime attribute in any of the tables are transitively dependent on the primary key.

User_	D Name	Email	Password	Picture	Bio	No_followers	No_Topics_Followed
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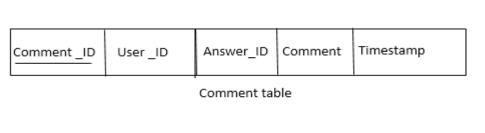
User Table

Question_ID	Question_name	No_Answers	No_Topics	Timestamp	User_id

Question table

Answer_ID User_ID Question_ID Answer_Name No_Comments No_Upvotes No_Down
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Answer table



|--|

Topic Table



Upvote Table



Downvote Table



Follower-Following table



Follower-Topic Table



Topic-Question Table