Course Project : First Part

1. *Basic Tables*

a. User(user_id, email_id, name, password, dob, gender, city, country, about_me, tagline, interests(topic_id), ProfilePictureURL, University, ComapnyName)
b. Follows(user_id, follow_id, flag, timestamp)
c. Chat(sender(user_id), receiver(user_id), message_id, message, isSeen, timestamp)
d. Question(question_id, questionBy(user_id), question, timestamp, topic_id, isAnonymous, viewers(user_id), askedBy(user_id), askedTo(user_id), response)
e. Topic(topic_id, topic_name)
f. Answer(answer_id, question_id, answerBy(user_id), answer, timestamp, viewers(user_id), bookmarkedBy(user_id))
g. Comment(question_id, answer_id, comment_id, comment, parent_id(comment_id), commentBy(user_id), timestamp)
h. Vote(question_id, answer_id, comments_id, voteBy(user_id), vote)
i. Notification(notification_id, notificationTo(user_id), url, string, isRead, timestamp)

2. *Assumptions*

3. *Functional Dependencies and Prime/Non-Prime Attributes*

a. For (a) in Basic Tables
   user_id -> email_id
   email_id -> user_id
   user_id -> name, password, dob, gender, city, country, about_me, tagline, topic_id, profilePicURL, university, company
   Prime Attributes : user_id, email_id Primary Key : user_id
   Non-Prime Attributes : {rest all}
b. For (b) in Basic Tables
   user_id, follow_id, flag -> timestamp
   Prime Attributes : user_id, follow_id, flag Primary Key : user_id, follow_id, flag
   Non-Prime Attributes : timestamp
c. For (c) in Basic Tables
   sender, receiver, message_id -> message, isSeen, timestamp
   Prime Attributes : sender, receiver, message_id Primary Key : sender, receiver, message_id
   Non-Prime Attributes : message, isSeen, timestamp
d. For (d) in Basic Tables
   question_id -> questionBy, question, timestamp, isAnonymous, viewers, topic_id
   question_id, askedBy -> askedTo, response,

Prime Attributes : question_id, askedBy Primary Key : question_id, askedBy
Non-Prime Attributes : {rest all}

e. For (e) in Basic Tables
topic_id -> topic_name
Prime Attributes : topic_id Primary Key : topic_id
Non-Prime Attributes : topic_name

f. For (f) in Basic Tables
answer_id, question_id -> answerBy, answer, timestamp, viewer, bookmarkedBy
answerBy, question_id -> answer-id
Prime Attributes : answer_id, question_id, answerBy Primary Key : answer_id, question_id
Non-Prime Attributes : answer, timestamp, viewer, bookmarkedBy

g. For (g) in Basic Tables
answer_id, question_id, comment_id -> comment, parent_id, commentBy, timestam
Prime Attributes : answer_id, question_id, comment_id
Primary Key : answer_id, question_id, comment_id
Non-Prime Attributes : comment, parent_id, commentBy, timestamp

h. For (h) in Basic Tables
answer_id, question_id, comment_id, voteBy -> vote
Prime Attributes : answer_id, question_id, comment_id, voteBy
Primary Key : answer_id, question_id, comment_id, voteBy
Non-Prime Attributes : vote

i. For (i) in Basic Tables
notification_id, notificationTo -> url, string, isRead, timestamp
Prime Attributes : notification_id, notificationTo
Primary Key : notification_id, notificationTo
Non-Prime Attributes : url, string, isRead, timestamp

4. *Minimal Cover*
5. *Normalization*
    a. User table
    1NF :