ERD

1. In erd
2. Master to children
    a. Users -> friends
    b. Users -> page_likes
    c. Users -> post_likes
    d. Pages -> page_likes
    e. Users -> comment_likes
    f. Users -> posts
    g. Users -> post_shares
    h. Users -> post_comments
    i. Posts -> post_photos
    j. Post_comments -> comment_likes
    k. Posts -> post_shares
    l. Posts -> post_likes

3. I try to create constraint CASCADE for every relation but I got an error about multilevel cascading in sql server
   https://stackoverflow.com/questions/851625/foreign-key-constraint-may-cause-cycles-or-multiple-cascade-paths
   so in the end I change some constraint into NO ACTION to avoid that error
4. ERD picture

Data Definition Language

1. Data integrity is something that make data inside a database good, usually followed by ACID principle (Atomicity, Consistency, Isolation, Durability), And we maintain it with sql server by making a good schema and relationship of tables
2. Primary key -> uniquely differentiate one data to another inside a table
   Foreign key -> make relationship possible between 2 tables
   Composite -> 2 or more attribute of table become the unique id of data
3. BEGIN TRAN -> Open transaction (database not affected if not commited)
   COMMIT -> apply change happen after BEGIN TRAN
   ROLLBACK -> revert/remove Staging changes by BEGIN TRAN