DATA VISUALIZATION - SOFTEC X FSDS

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ROUND 1:

- Load the excel file into a database of their choice.
- Extra points will be awarded to participants who perform the ETL process in SQL.
- Use One to Many transformation to extract the following columns:
  [Date] -> [Day, Date, Month, Year].
- Create a new table for the Date Dimension and replace the Date Column in COVID table with the Key of the new table.
- Given the Complete FIPS code, extract StateFIPS and create a column for StateFIPS using One to One Transformation.
- Remove any FIPS code for which corresponding StateFIPS does not exist.
- Remove the StateFIPS, FIPS and County Name column from COVID Table and move them to the STATE table, leaving only a Key in the COVID table for State information.
- Final Tables after all these transformations:
  COVID -> {Data Key, Date Key, Area Key, Daily Cases, Daily Deaths, Cases, Deaths}
  DATE -> {Date Key, Day, Date, Month, WeakOfYear, Year}
  State/Area -> {AreaKey, County Name, CompleteFIPS, StateFIPS, State, StateCode, US Territories, Country}
- Create the following features for visualization:
  - Total Confirmed Cases
  - Total Deaths
  - Case Fatality Rate
  - Daily Recovered
  - Total Recovered
  - Recovery Rate

NOTE: YOU MIGHT WANT TO CREATE ALL THESE FEATURES WITH RESPECT TO THE ATTRIBUTES DATE, STATE, COUNTY EACH RESPECTIVELY FOR YOUR HELP IN VISUALIZATION OF NEXT ROUND

NOTE: YOU CAN CREATE MORE TABLES OR FEATURES FOR YOUR USE BUT THEY SHOULD BE MEANINGFUL. CREATION OF UNWANTED ATTRIBUTES/TABLES MIGHT RESULT IN NEGATIVE MARKING.

SUBMISSION:
- Submission must be in a ZIP file, with the name of the ZIP file as your team name.
- Submit your code files that you used for ETL.
- If you used SQL, submit any and all SQL files with proper instructions on how to execute them.
- Database creation has points, hence instructions on how you created your database is required for submission:
  - If you used code to generate your database, only that code is required.
  - If you followed manual steps to create your database, create a docs file listing the steps you followed. These steps must create a complete database, hence make sure the report is detailed.