Game Data Analyst Challenge

You've received a SQLite3 database data.sqlite as an attachment containing sample data from a hypothetical free-to-play mobile game (see section The Data for details). Your task is to use this data set to answer the questions below and prepare a report of your findings.

The Data

The database contains three tables: account, account_date_session and iap_purchase. Account contains user profiles, iap_purchase contains in-app purchases by the users, and account_date_session contains the number of sessions for the users for the days they have been active. All the tables contain data for the year of 2016.

You can access the SQLite3 database by command line interface sqlite3. There are also libraries for R and python.

We'd prefer that you complete the assignment using SQL, R, and/or python but feel free to use any tools that you think are suitable for the job.

Task 1. Revenue and Active Users

• Are there any trends visible in the revenue or the daily active users? Visualize and explain your observations.

• Analyze the geographic split of the revenue and the users. What are your observations of the results?

• How would you define the lifetime value (or lifetime revenue) of a user? What proportion of this is generated during the player's first week in-game?

Task 2. Free-to-play Metrics

• What are the most important metrics when analyzing a free- to-play mobile game? Which of these metrics could be calculated using the data in the database?

• Visualize one aspect of the data you find important. This can be one of the metrics above or something else. The main point is that it offers actionable results to the game team.

• What would be your conclusions and recommendations to the game team based on this insight/visualization?