Test: To complete the test, you must send us:

• A Word document with your answers • A .sql file which includes all your queries.

There is no restriction on the visualisation tool.

It is not mandatory to answer all questions, and if you are stuck on one question, we encourage you to send your work on it anyway.

Set-up: To complete the test, you must use SQLite (attached with the test).

In the folder “sqliteStudio” run the SQLiteStudio.exe file. This should open the software. If it is not already there, import the database ‘test\_data\_analysis\_intership.db’

You’re now good to go 😊

Good luck!

Questions:

Using SQLite and the two SQL tables contained in the database, answer the following questions;

1. Engagement metrics: a) Write a query that returns the DAU. b) Write a query that returns the weekly stickiness. c) Create the appropriate visualization for the two previous queries using the tool of your choice and comment the results.

2. Monetization metrics: a) Write a query that return the daily revenue. b) Write a query that return the daily conversion rate. c) Create the appropriate visualization for the two previous queries using the tool of your choice and comment the results.

3. Create a query that return the average daily playtime.

4. Acquisition: a) Using the available tables, create a query that returns the CPI per acquisition channel. b) Using all available data, what acquisition channel should we focus on?

5. Create a query that return, per install date, the average LTV and the average time to first purchase.

6. Your Product Manager comes to you with cumulative revenue data (“Q6\_data.xlsx). a) Double check the data validity provided to you. b) On which date should we reach $700K in cumulated revenue? c) Detail the methodology that led you to your answer and why you chose it.

Appendices:

#1: Definitions. - DAU: Daily Active Users, all unique users that played on a day. - Weekly Stickiness: Daily Active Users / Weekly Active Users. - Daily Revenue: sum of revenue generated by the players per day. - Daily Conversion Rate: Users that made a purchase / DAU. - Average Daily Playtime: Average time (in minutes) spent per player in the game per day. - CPI: Cost Per Install. - Acquisition channels: Different sources on which new spent advertising budget to acquire new players. - LTV: The LifeTime Value is the total amount of revenues generated by players since they installed the game. - Time to first purchase: Average time (in minutes, hours or days) spent by players in the game since installing the game before making their first purchase.

#2: Database info: - Events : return in game events per user. o user\_id (VARCHAR), unique user identifier. o event\_neame (VARCHAR), name of the event triggered. o event\_timestamp (DATETIME), timestamp at which the event was triggered. o acquisition\_channel (VARCHAR), channel through which the user was acquired. o transaction\_name (VARCHAR), name of the pack bought by the user. o transaction\_value (REAL), value in USD of the pack. o transaction\_id (INTEGER), unique transaction identifier. o session\_id (VARCHAR), unique session identifier.

- Acquisition: return all acquisition cost per day per channel. o date (DATE), date at which the acquisition spending was made. o source (VARCHAR), acquisition channel associated to the day and the cost. o cost (REAL), USD value of the acquisition costs.