# Task: Data Analysis Report

The data provided contains information about a random selection of 5,000 players who installed one of our Games, **Object Hunt** (App store pages: [Android](https://play.google.com/store/apps/details?id=com.kwalee.objecthide&hl=en_GB&gl=US&pli=1) and [iOS](https://apps.apple.com/us/app/object-hunt/id1537594881)), over a 30 day period.

There are two datasets provided:

[players.csv](https://drive.google.com/file/d/16ypCqEmIUNZ6ndsgFfhPR9J4bhKF2LYn/view?usp=sharing):

* **Description**: Event sent when player installed the app and contains information on the characteristics of the player.
* **Columns**:
  + *install\_datetime*: The date and time at which the player installed the app. (UTC)
  + *player\_id*: A unique identifier for each player.
  + *platform*: The platform on which the player has installed the app.
  + *country*: The two digit country code representing the country of install.
  + *screen\_size*: The diagonal screen size in inches.
  + *system\_memory*: The amount of RAM on the system in MB.

[level\_progress.csv](https://drive.google.com/file/d/1yTzNCB4Yx7d8O9Sr1iujdBqNW9SdGi6w/view?usp=sharing):

* **Description**: Event sent when player progresses through the levels and stages in the app.
* **Columns**:
  + *event\_datetime*: The date and time at which the event was received (UTC)
  + *player\_id*: A unique identifier for each player.
  + *level\_number*: The level number the event corresponds to.
  + *stage\_number*: The stage number the event corresponds to. A stage is a subsection of a level (i.e. a level will be split into a number of stages). For more information on level and stages see [Appendix](#_heading=h.hom8rzh0d9rp).
  + *status*: The outcome the event corresponds to:
    - ‘start’: Sent when a player starts a stage within a level in a session. This can be re-sent for the same level if a player reboots the app and restarts the stage.
    - ‘fail’: Sent when a player fails a stage within a level. In this app, a player fails when they are caught by the hunter. Failing results in the player receiving negative feedback text and will progress onto the following stage.
    - ‘complete’: Sent when a player successfully completes a stage within a level and is eligible to progress onto the next level.
  + *session\_id*: A unique identifier for the session in which the event was produced. A session is defined as the period of time a player plays the app, it starts when they open the app and ends when they close the app. A player can play for multiple levels and stages in a session.

You should use the *player\_id* columns in each file to link players with their level progress information.

**Does failing a level increase the risk of churn? (Churn is the proportion of players who stop playing the game, i.e do not progress.)**

* Assume that the customers will be game designers who will use this report to decide whether failing a level increases the risk of churn for this game.

# Appendix: Level and Stages

The screenshot attached was taken during Level 1 (level\_number = 1) Stage 1 (stage\_number = 1). The two circles at the top of the screen (highlighted by the red box) shows that there are 2 stages in this level. The player must complete all 2 stages in order to progress to the next level which is Level 2.

