### **Analysing Data with BigQuery and Visualizing Insights with Looker Studio**

Analyse the dataset using BigQuery, perform meaningful data analysis, and create two interactive dashboards in Looker Studio to visualise marketing and product analytics.

### **Task Details:**

Please use the dataset linked below to complete the task.

[Data Analytics Skill Test data set](https://docs.google.com/spreadsheets/d/1CUDuM8_8nka_8TxNQcud8fIL7DIngnxWq-OMMbG2Bbs/edit?usp=sharing)

**Step 1: Analyse the Data using BigQuery**

* **User**: Includes demographic and device information of users.
* **App Events**: Tracks user interactions with various features in the app.
* **Marketing Events**: Contains campaign-level details of marketing spend, channels, and conversions.
* **Analyse:**
  + Upload these datasets into BigQuery and create a dataset for analysis.
  + Perform the following tasks using SQL queries:
    - **Marketing Analytics:**
      * Analyse marketing campaign performance by channel (spend, conversions, and conversion rate).
      * Calculate the Cost Per Acquisition (CPA) for each campaign.
      * Identify which channels are most cost-effective in terms of conversions.
    - **Product Analytics:**
      * Analyse feature adoption rates (how many users engaged with specific features).
      * Calculate daily or weekly active users (DAU/WAU).
      * Perform cohort analysis to track user retention over time.
      * Analyse average session duration per feature and user location.

### **Step 2: Visualisation in Looker Studio**

1. **Dashboard 1: Marketing Analytics**
   * Objective: Visualise the performance of marketing campaigns.
   * Key Metrics to Include**:**
     + Total spend, total conversions, and conversion rate by channel.
     + A trendline showing conversions over time.
     + Traffic source breakdown (e.g., paid, organic, direct).
     + Filter by campaign and date range.
2. **Dashboard 2: Product Analytics**
   * Objective: Track app feature adoption and user engagement.
   * Key Metrics to Include:
     + Daily/weekly active users (DAU/WAU).
     + Feature adoption rates.
     + Retention analysis (showing how many users return after initial usage).
     + Average session duration per feature and user location.
     + Filters to segment data by country, device type, and feature.

### **Step 3: Task Submission**

Create one interactive/live Looker Studio dashboard(**PUBLIC** access) with both Marketing Analytics and Product Analytics, as mentioned in Step 2 and share the link.