**Project Documentation**

**Title:** Direct Marketing Campaign Analysis – Portuguese Bank  
**Analyst:** Bukunmi Adeeko  
**Tool Used:** Microsoft Excel

**Methodology**

1. **Data Cleaning:**
   * Loaded the CSV-like raw dataset into Excel.
   * Used *Text to Columns* to separate fields using the semicolon delimiter.
   * Cleaned missing values, ensured consistent data types, and checked for duplicates.
   * Created an additional derived column Age Bracket (Adolescent, Middle Age, Old) using IF logic for clearer segmentation.
2. **Exploratory Data Analysis (EDA):**
   * Created Pivot Tables and Pivot Charts to explore key relationships.
   * Used Excel Slicers for interactive filtering across job, education, marital status, housing, and poutcome.
   * Focused on the subscription outcome variable y and its relationships with other features.
3. **Dashboard Design:**
   * Built a six-chart dashboard with a clean, corporate visual layout.
   * Included slicers for stakeholder interactivity.
   * Structured layout into percentage charts, bar charts, and trend lines to highlight response behaviors.

**Key Insights**

1. **Overall Subscription Rate:**
   * The majority of customers did **not subscribe** to the term deposit, with a small but significant portion showing positive responses.
2. **Age Analysis:**
   * **Middle-aged individuals** (likely between 30–60) had the highest subscription rates, making them a strong target group for future campaigns.
3. **Contact Method Effectiveness:**
   * **Cellular calls** yielded the highest number of positive responses compared to telephone or unknown contacts.
4. **Balance Correlation:**
   * Subscribers generally had a **higher account balance**, indicating financial stability plays a role in decision-making.
5. **Education Influence:**
   * Customers with **tertiary education** had notably higher subscription rates, suggesting education level influences engagement.
6. **Temporal Trend:**
   * Most subscriptions happened in **May and August**, which may correspond with seasonal banking trends or campaign intensity.

**Recommendations**

1. **Target Middle-Aged, Educated Clients:**
   * Focus future campaigns on middle-aged customers with tertiary education, especially those with higher account balances.
2. **Prioritize Cellular Contact:**
   * Allocate more call resources to cellular contact channels, which have proven to be the most effective.
3. **Schedule Campaigns Strategically:**
   * Repeat or intensify campaigns during **May and August**, leveraging historical performance trends.
4. **Leverage Financial Profiles:**
   * Use internal bank metrics (like account balance) to pre-qualify or personalize outreach strategies