Final Data Analytics Report

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### **1. Introduction**

This report presents a comprehensive data analysis of learner and marketing campaign data, culminating in a Looker Studio dashboard. The primary objective of this project was to consolidate and clean several raw datasets—including learner demographics, opportunity enrollments, and marketing campaign performance—into a unified master\_table. This clean dataset then served as the foundation for a dynamic dashboard, enabling stakeholders to gain insights into user behavior, campaign effectiveness, and key operational metrics.

### **2. Dashboard Overview**

The interactive Looker Studio dashboard is designed to provide a holistic view of the data, organized into three main pages:

* **Executive Summary:** A high-level overview of Key Performance Indicators (KPIs) such as total learners, total marketing spend, and top-performing campaigns.
* **Learner & Opportunity Insights:** A deep dive into learner demographics, degree levels, and enrollment trends across various opportunities and categories.
* **Detailed Drilldown:** A searchable table that allows users to explore individual records and filter the data on any dimension for granular analysis.

## **Live Dashboard Link:** [Dashboard](https://lookerstudio.google.com/reporting/b3cc2218-5a3f-4f86-b851-9fe0bb76a279)

### **3. Key Findings and Insights**

Based on the analysis and visualizations from the dashboard, here are some key insights:

* **Learner Demographics:** Analysis of the Age Group and Gender Split by Degree charts reveals the primary demographic profile of our learners, which can inform targeted marketing and course offerings.
* **Top Opportunities:** The dashboard clearly highlights the Top Opportunity Name and Enrollment by Opportunity, showing which programs are most popular among learners.
* **Marketing Performance:** By examining the Total Amount Spent (AED) and Total Results scorecards, we can identify which campaigns are generating the most interest. The Amount Spent by Campaign chart provides a detailed breakdown of budget allocation.
* **Cost-Effectiveness:** The Average Cost per Result and Average CPC metrics provide a clear picture of marketing efficiency, helping to identify campaigns that offer the best return on investment.

### **4. Data and Methodology**

The dashboard was built on a meticulously cleaned master\_table created through an Extract, Transform, Load (ETL) process. This process involved:

* **Extraction:** Data was sourced from raw files including Learner Opportunity Data, Cognito Data, User Data, and Marketing Campaign Data.
* **Transformation:** Key steps included imputing missing values, standardizing data types (e.g., converting text to numeric or date fields), and creating calculated fields like Age and Age Group.
* **Loading:** The final master\_table was loaded into a structured format for use in Looker Studio, ensuring data integrity and consistency.

### **5. Conclusion**

The completed dashboard provides a powerful, user-friendly tool for data exploration and decision-making. It successfully integrates disparate data sources to offer actionable insights into both learner engagement and marketing effectiveness. This foundational work can be expanded upon with further analysis to build predictive models or to track campaign performance in real-time.