

Functional Requirements Document (FRD)

Project Title: EdTech Growth Analytics – Learnbay

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Role: Business Analyst Intern

Duration: May 2024 – December 2024

Tools: SQL, Power BI, Excel

1. Project Overview

This project focuses on delivering a data-driven dashboard to analyze and optimize marketing campaign performance, user conversion patterns, and churn behavior for Learnbay's online/offline AI course offerings. The insights are intended to align product and marketing strategies and support key business decisions.

2. Data Sources

Source	Description
Campaign Data	Google Ads, Meta Ads, SEO, Referral performance
Lead Data	CRM data with lead source, sign-up date
Conversion Logs	Trial-to-paid conversion dates and stages
Budget Data	Monthly spend per channel

3. Key KPIs and Metrics

KPI	Description	Formula/Logic
CTR (Click-Through Rate)	% of viewers who clicked an ad	(Clicks / Impressions) * 100
CAC (Customer Acquisition Cost)	Spend required to acquire one paying user	Spend / No. of Customers Acquired

ROI per Campaign	Return on campaign investment	$(\text{Revenue} - \text{Spend}) / \text{Spend}$
Conversion Rate	% of leads converting to trials or paid users	$(\text{Conversions} / \text{Total Leads}) * 100$
Churn Rate	% of trial users who didn't convert	$(\text{Churned Trials} / \text{Total Trials}) * 100$
Average Time to Convert	Lead to paid user time	$\text{DATEDIFF}(\text{Enrollment Date}, \text{Lead Date})$
Cohort Retention	% of users in a group still active after defined intervals	Based on cohort tables

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#### 4. Dashboard Features (Power BI)

- Channel Comparison View (CTR, CAC, ROI by channel)
  - Marketing Funnel Visual (Lead → Trial → Paid → Completion)
  - Cohort Analysis Heatmap (conversion over weeks/months)
  - KPI Scorecard (Color-coded metrics for quick health check)
  - Campaign Timeline Trend Graphs
  - Slicers/Filters: Time, Channel, Campaign, Course, User Stage
  - Drill-through Pages for detailed cohort or campaign data
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#### 5. User Roles & Access

Role	Access Level
Marketing Team	View campaign performance & ROI
Product Team	Access to user journey, churn, cohorts
Management	View KPIs, executive dashboard

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## **6. Assumptions**

- Campaign data is standardized and pre-cleaned.
  - Revenue is only counted from paid users.
  - Weekly updates are manually pushed to the dashboard.
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## **7. Constraints & Risks**

- Limited historical data (only recent campaigns available).
  - Inconsistent campaign naming requires cleaning/mapping.
  - Dependence on the Marketing team for accurate tagging.
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## **8. Expected Outcomes**

- Improve campaign ROI by 10% via better budget reallocation.
  - Save 20+ hours/month by automating reports with SQL + Power BI.
  - Enable product and marketing alignment using strategic cohort insights.
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