AISF

ARTIFICIAL INTELLIGENCE STUDENT FORUM

PRESENTS

VIT CODE APEX

CODE VERSE HACKATHON 2025

Problem Statement Title:
Lack of Real-Time KPI Visibility: Campaign performance insights were scattered across multiple tools, resulting in fragmented reporting and delays indecision-making due to the absence of a centralized dashboard.

Team Name- Bit Beast

Team Members: Yash Deshpande

Aniket Bhujad

Khushi Roongta

IDEA TITLE

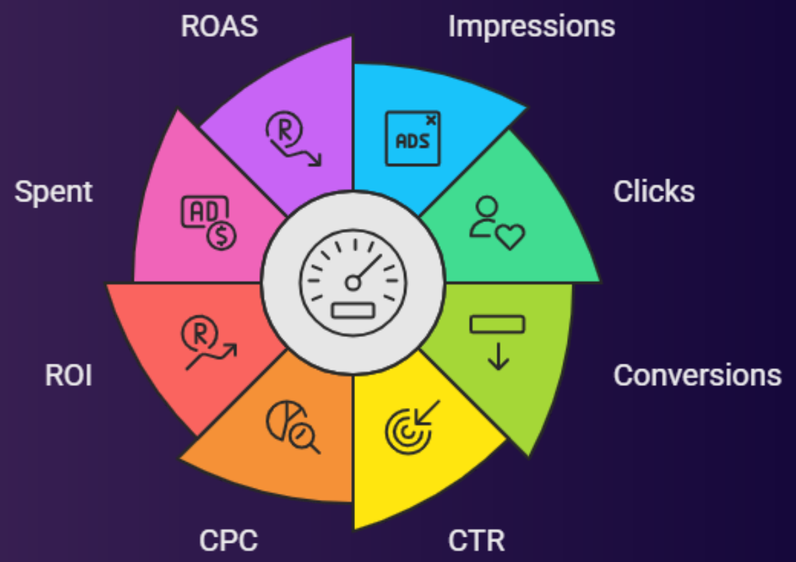
💡 Centralized Real-Time KPI Dashboard

We propose a smart, unified platform that collects campaign performance data from multiple tools and displays it on a centralized dashboard.
Integrates data from ad platforms, analytics tools, and CRM systems.
Provides visualization of KPIs with automated reports.
Enables stakeholders to view campaign performance in one place and take faster actions.

🛠️ How the Solution Helps

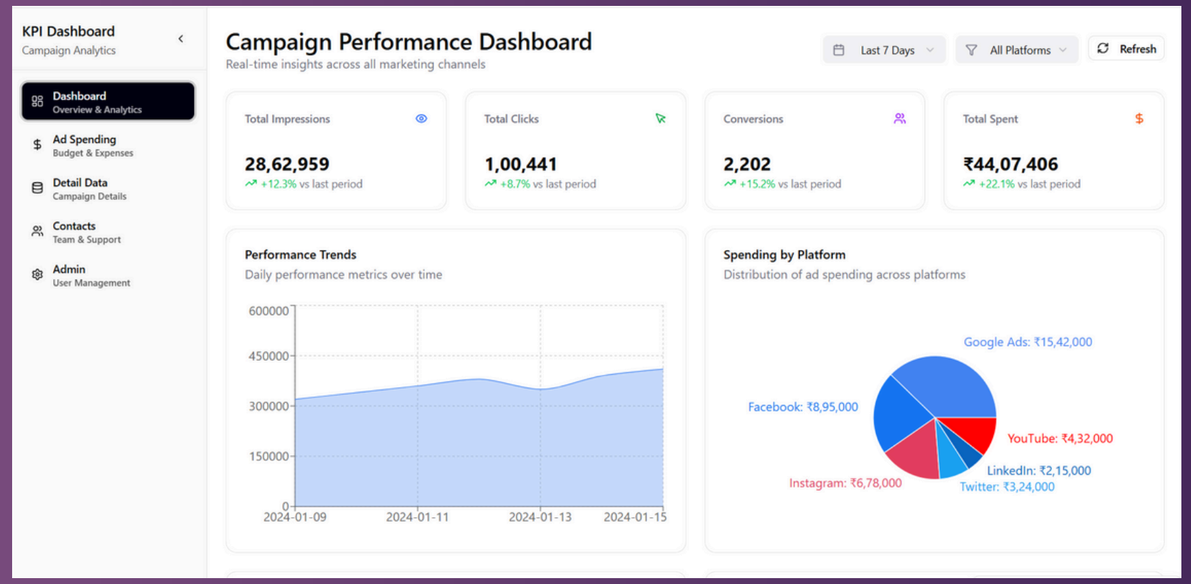
Eliminates the need for manually switching between multiple tools and reports.
Allows campaign managers to make faster, data-driven decisions.

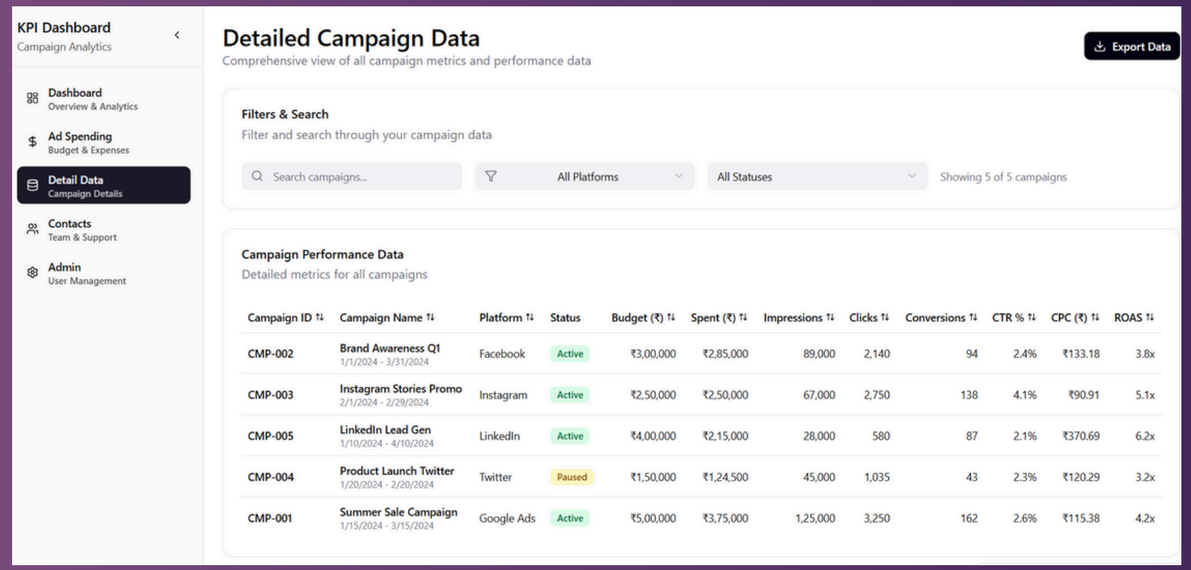
KPI OVERVIEW

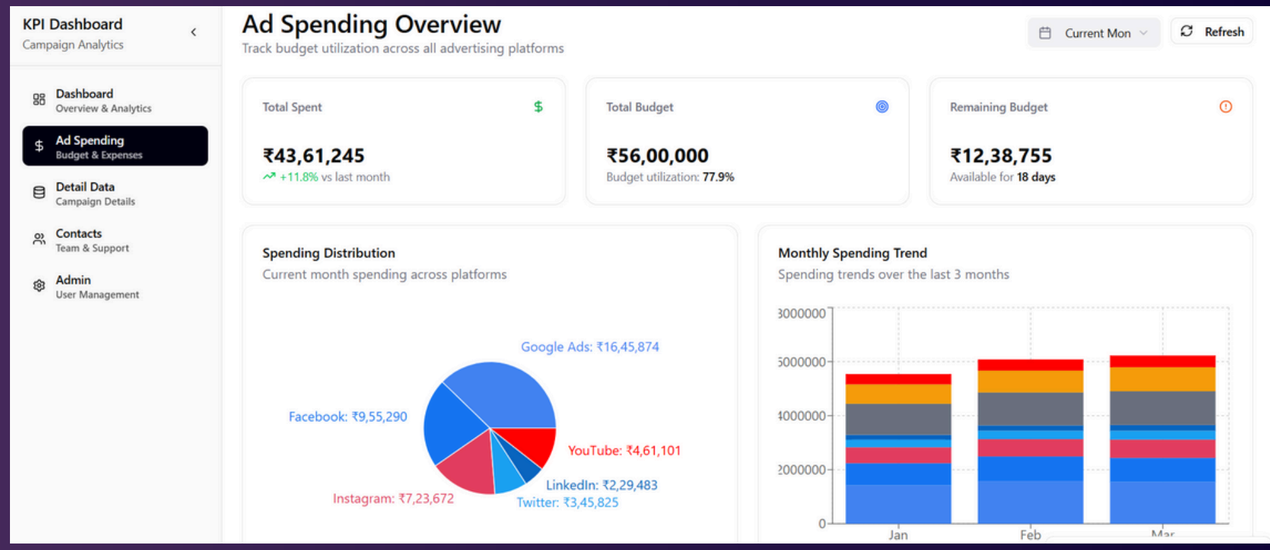


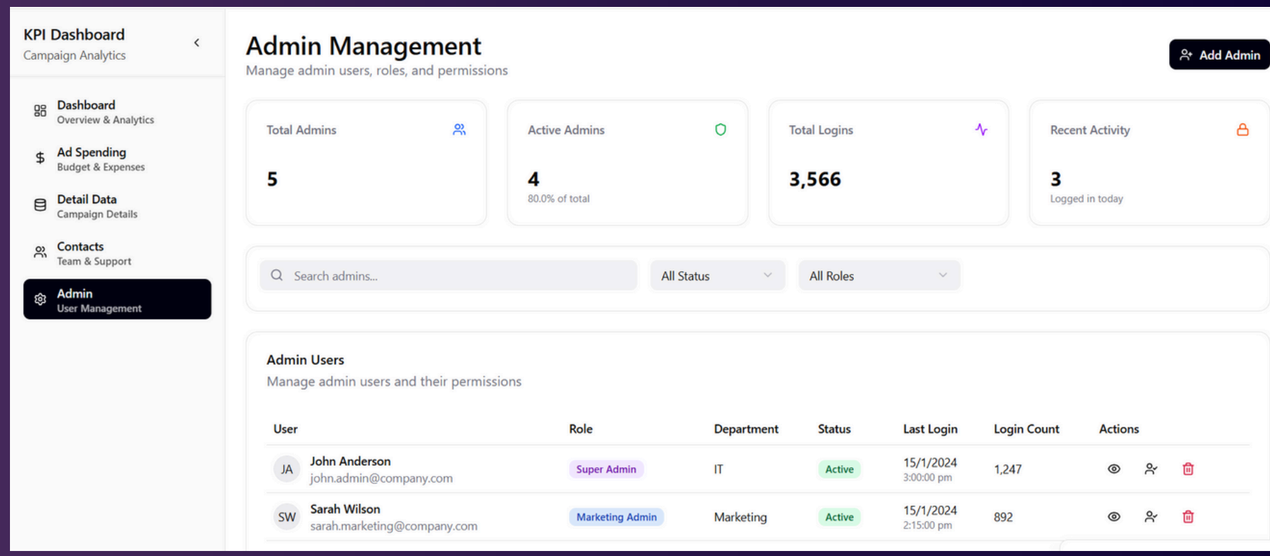
KPI (Key Performance Indicators) are the measurable metrics that help track how well marketing campaigns are performing. In your centralized dashboard, KPIs are automatically calculated from Google Ads, Facebook Ads, and LinkedIn Ads data, then displayed to managers, finance teams, and clients.

PROTOTYPE





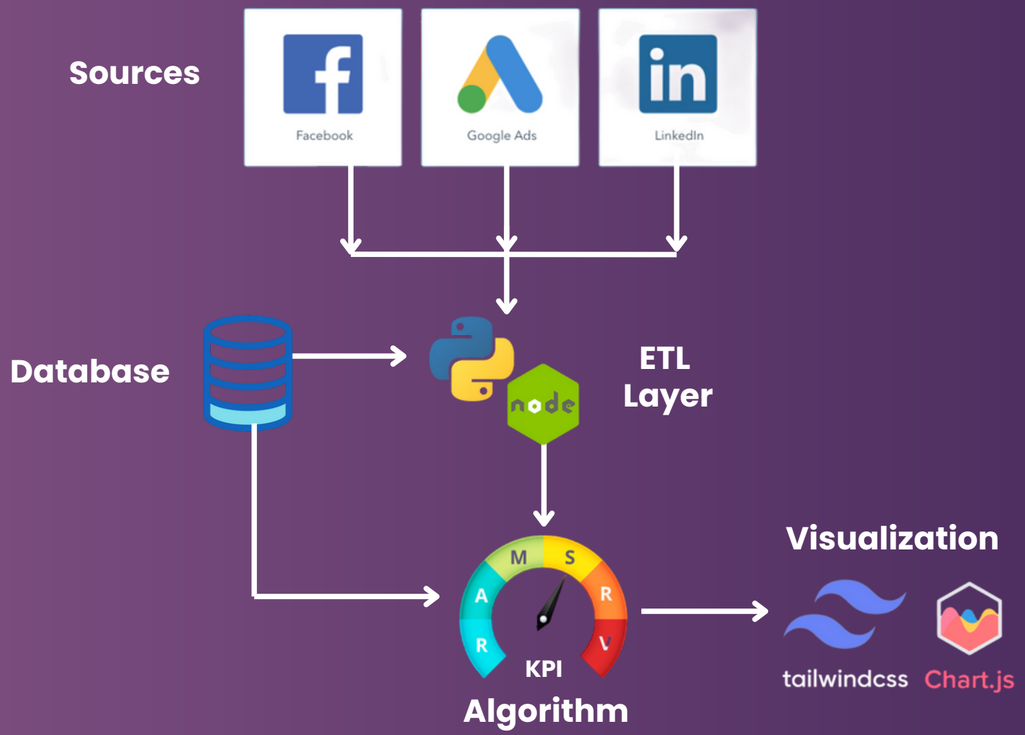




PROTO-TYPE lINK : KPI-Dashboard-Prototype.site

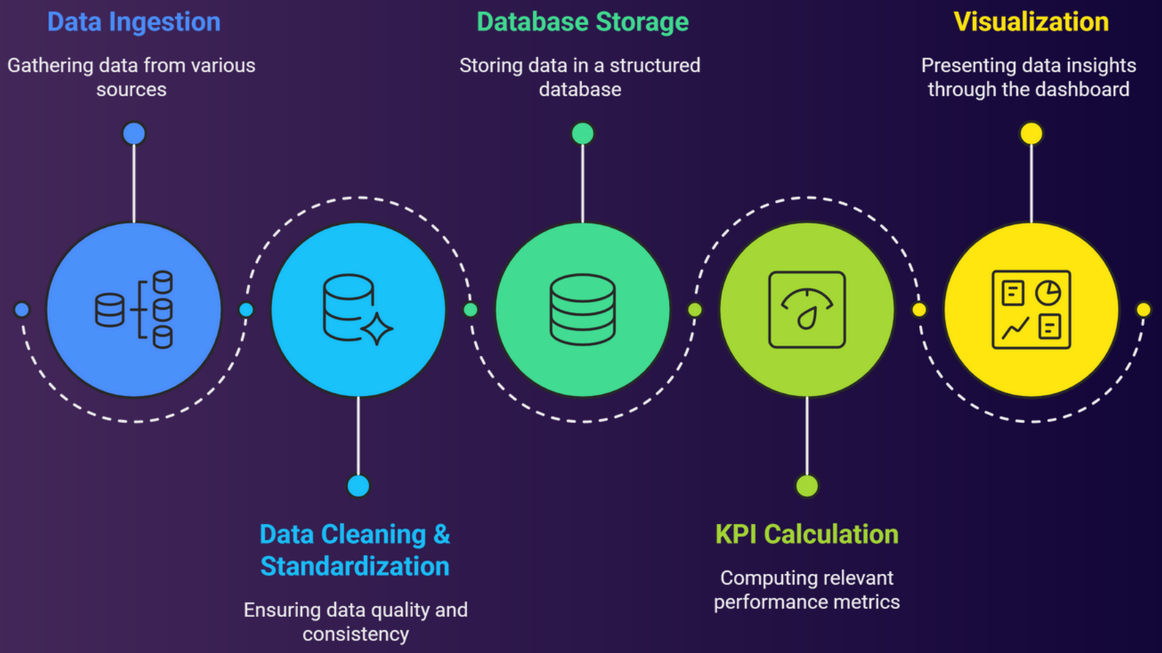
TECHNICAL APPROACH

TechStack



- Data is collected from multiple sources like Facebook, Google Ads, and LinkedIn.
- This data is stored in a centralized database for easy access.
- An ETL layer (Python + Node.js) processes and cleans the data.
- A KPI algorithm analyzes the data to generate meaningful insights.
- Insights are displayed through visualization tools (TailwindCSS + Chart.js) in a user-friendly dashboard.
- Used Figma for UI/UX design and VS code as coding tool.

SYSTEM ARCHITECTURE



Data Ingestion (ETL Layer) : Backend scripts pull campaign data from Google Ads API.
Data Cleaning & Standardization : Align Google, Facebook, and LinkedIn metrics into a common format.
Database Storage : Store cleaned data in structured tables for campaigns, performance, and finance.
Processing & KPI Engine : Backend queries calculate KPIs like CTR, CPC, ROI, and conversions.
Visualization : React.js dashboard displays real-time KPIs and reports for managers, Finance, and clients.

FEASIBILITY AND VIABILITY

✅ Analysis of the Feasibility of the Idea

Financial:

Built with api and flexible cloud hosting , keeps costs low.
Long-term savings by automating tasks and cutting down on too many tools.

Market:

High demand across industries struggling with scattered marketing insights.
Provides competitive advantage by enabling real time visibility of performance.

Operational:

Everything sits in one place, making it easier to track campaigns and work together as a team.
Say goodbye to juggling spreadsheets and scattered reports. The system keeps it clean and simple.

🔍 Potential Challenges and Risks

Different platforms data:

Google Ads, Facebook, and LinkedIn sometimes calculate things differently (like clicks, conversions, or ROI).
This can confuse users when comparing campaigns side by side.

Too much data:

If we throw every single KPI onto the dashboard, it could feel messy and hard to read. We need to highlight the most important metrics first, let users drill down if they want more.

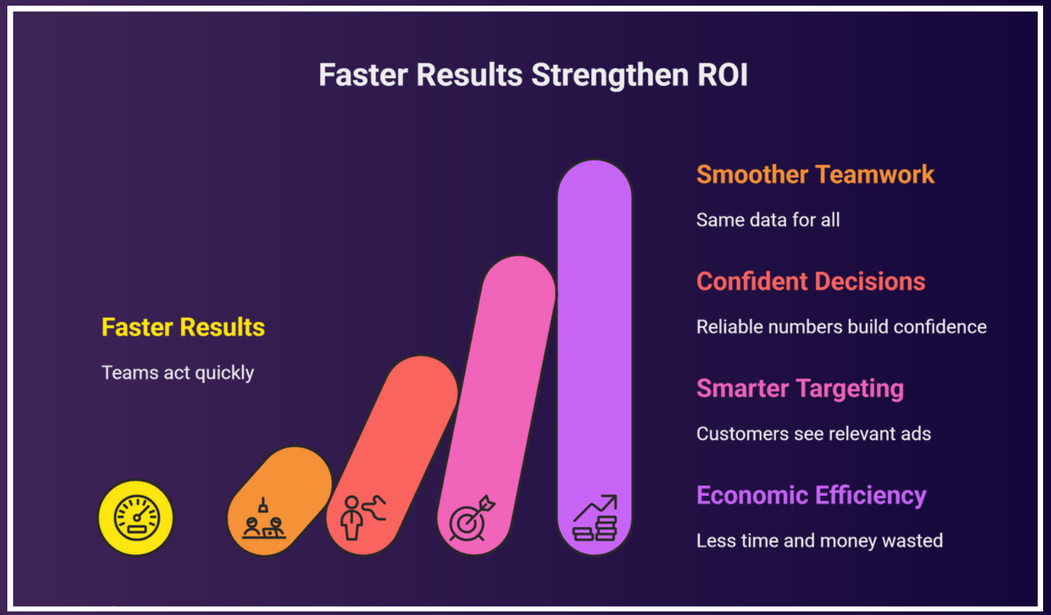
🔧 Strategies for Overcoming These Challenges

- Keep data feeling fresh
- Use smart refresh timings and caching so numbers look almost live without delays.
- One definition for everyone.
- Standardize KPI rules so Google, Facebook, and LinkedIn all speak the same language.

IMPACTS AND BENEFITS

📈 Potential Impact

As team get faster result,Teams can act fast and get stronger ROI.
Marketing, sales, and management all see the same data. That means fewer mix-ups and smoother teamwork.
Reliable numbers give confidence. It’s easier to convince clients or managers and make bold, smart decisions.



🎯 Benefits

Social :

Smarter targeting means customers see ads that actually matter to them, creating a smoother and more positive experience.

Economic :

Less time and money wasted on manual reporting, more efficiency, and better returns from every campaign.