



SOMAIYA
VIDYAVIHAR UNIVERSITY

DataZen

Official Council for **Data Science**,
Somaiya Vidyavihar University



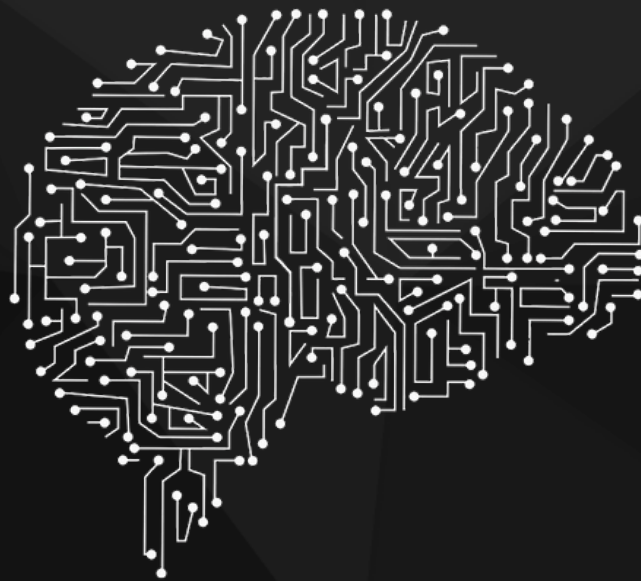
• **DATAZEN PRESENTS** •

CASE STUDY COMPETITION

ANALYZE. VISUALIZE. PRESENT.

A DATATHON PRE-EVENT





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1. India's EV Adoption and ICE-to-EV Transition Analysis

Dataset:

<https://www.kaggle.com/datasets/shubhamindulkar/ev-datasets-for-the-indian-market>

Business Problem: India's automotive sector is witnessing a gradual shift from internal combustion engine (ICE) vehicles to electric vehicles (EVs). While EV adoption is rising due to policy incentives, environmental concerns, and technological advancements, the transition is uneven across states and vehicle segments, making it difficult for stakeholders to plan production, infrastructure, and policy interventions.

Objective: Build an interactive Tableau/Power BI dashboard that:

- Analyzes EV vs ICE vehicle distribution
- Tracks adoption trends over time
- Predicts future EV adoption trends across Indian states

Prediction Component: Forecast the rate of conversion from ICE vehicles to EVs in a particular state for the next 2 to 3 years

Predicting EV Adoption Trends and ICE-to-EV Transition Using Automotive Data → India's automotive ecosystem is diverse in terms of geography, income levels, vehicle usage patterns, and policy implementation. While some states and cities are rapidly adopting EVs, others continue to rely heavily on ICE vehicles despite similar economic or infrastructural conditions, making the transition dynamics difficult to predict.

Your task is to design an AI driven analytical framework using Indian vehicle registration and infrastructure data to identify the factors that influence EV adoption and the transition from ICE to EVs across different states and vehicle segments. Teams are expected to explore how policy incentives, infrastructure availability, vehicle category, and regional characteristics interact to shape EV adoption patterns in India.

The solution should include:

- A comparative analysis of EV and ICE adoption across states and vehicle segments to uncover regional and market-level differences
- A predictive model to estimate the rate of conversion from ICE vehicles to EVs or forecast EV market share growth
- Interpretability-driven insights explaining why certain states, segments, or policy conditions accelerate EV adoption

Teams may optionally extend their analysis to evaluate charging infrastructure readiness or assess policy impact variations, but the primary objective is to model and explain the ICE-to-EV transition patterns in the Indian automotive landscape.

2. Indian Music Consumption Trends on Spotify

Dataset:

<https://www.kaggle.com/datasets/gayathripullakhandam/spotify-indian-languages-datasets>

<https://www.kaggle.com/datasets/wardabilal/spotify-global-music-dataset-20092025>

Business Problem: Spotify India wants to understand how music preferences vary across Indian languages and how these trends have evolved over time to improve regional marketing and playlist curation.

Objective: Build an interactive Tableau/Power BI dashboard that:

- Analyzes language wise song distribution
- Tracks popularity trends over time
- Predicts future popularity trends for major Indian languages

Prediction Component : Forecast average popularity score for next 2 to 3 years by language

Predicting Music Trends and Artist Growth Using Spotify Data →

India's music ecosystem is linguistically and culturally diverse, with streaming platforms hosting content across multiple Indian languages, genres, and listening behaviors. While some songs achieve widespread popularity, others with similar characteristics fail to gain traction making music success difficult to predict.

Your task is to design an AI-driven analytical framework using the Spotify Indian Languages dataset to identify the factors that influence song popularity and artist success across different Indian languages. Teams are expected to explore how audio features, language, genre, and artist-level patterns interact to shape listener engagement on Spotify.

The solution should include:

- A comparative analysis of audio features and popularity across Indian languages to uncover cultural and musical differences
- A predictive model to estimate song popularity or classify “hit” vs “non-hit” tracks
- Interpretability-driven insights explaining why certain features or language-genre combinations perform better

Teams may optionally extend their analysis to detect emerging artists or analyze genre language fusion effects, but the primary objective is to model and explain popularity patterns in the Indian music streaming landscape.