

SKODA SMARTFLOW – AI ENABLED AUTOMATION

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Client Organization

Mahavir Group – Skoda Division

Authorized Dealers of Skoda Auto India Hyderabad, Telangana

Document Type:

“SKODA SMARTFLOW – Data Handling and Automation Framework”

Introduction

Purpose of the Report

- This document explains how real-time data is captured, processed, automated, and analyzed within the **SmartFlow System**.
- It provides a complete overview of the **data management cycle, automation logic (n8n)**, and **AI-driven workflows** implemented in Mahavir Skoda's Sales Automation prototype.
- Focus: *Data integration → Automation → AI-driven decision support → Management insights.*

System Overview

Modules in the System:

1. **Marketing Team:** Captures event leads and pushes them into MySQL.
2. **Customer Relations Team (CRT):** Qualifies leads, generates AI-based summaries.
3. **Sales Executives:** Manage calls, test drives, and follow-ups.
4. **IT Admin:** Monitors performance, maintains the database, and automations.
5. **Management Dashboard (Power BI):** Views insights on sales funnel, conversion, and performance.

Technology Stack:

- **Database:** MySQL
- **Automation Engine:** n8n
- **AI Integration:** OpenAI API (or placeholder endpoint)
- **Visualization Layer:** Power BI
- **Backend API:** Node.js / Flask (for CRUD operations)
- **Frontend:** Web + Mobile app built with React/Bootstrap

Data Flow Design

Step-by-Step Flow:

Step	Action	Data Movement	Automated Trigger
1	Marketing captures lead	Lead → MySQL ("Leads" table)	Manual form submission
2	CRT reviews & qualifies	Updates status → Adds AI Summary	n8n sends data to AI API
3	AI generates summary	AI Output → "Feedback Summaries" table	Stored automatically
4	Lead assigned to Sales Executive	Updates "Assigned_to" & status	Auto assignment rule
5	Sales updates outcomes (call/test drive)	Inserts → "Calls" / "Schedules" tables	Triggers scheduling automation
6	n8n creates follow-up reminder	Generates calendar invite (ICS/Google)	
7	Power BI refreshes dashboard	Reads MySQL tables via gateway	Hourly or manual refresh

MySQL Database Schema

Main Tables:

1. Leads

- id, name, phone, email, vehicle_interest, source_event, assigned_to, status
- Tracks each lead's life cycle.

2. Calls

- id, lead_id, date_time, outcome, feedback, vehicle
- Stores customer interactions & outcomes.

3. Schedules

- id, executive_id, date, summary
- Maintains all scheduled test drives/follow-ups.

4. FeedbackSummaries

- id, lead_id, ai_summary
- Contains AI-generated text outputs from feedback analysis.

Data Example:

<u>id</u>	<u>name</u>	<u>vehicle interest</u>	<u>source event</u>	<u>status</u>	<u>assigned to</u>
1	Ramesh Patel	Kushaq	Auto Expo	Assigned to CRT	crt1

Automation Layer (n8n Workflows)

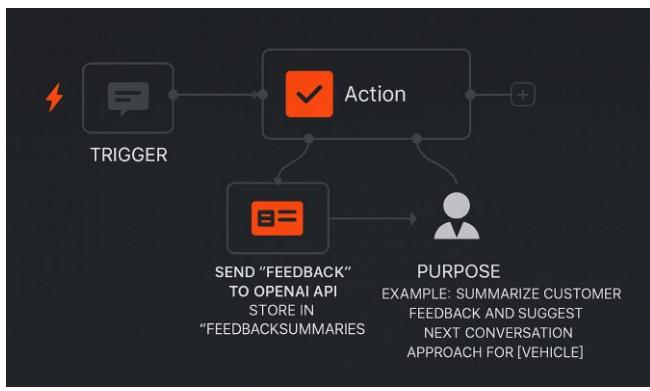
Automation 1 – Calendar Scheduling

- Trigger: New entry added in “Schedules” table.
- Action: Create Google Calendar event or .ICS file.
- Purpose: Automatically notify sales executives about upcoming customer follow-ups/test drives.



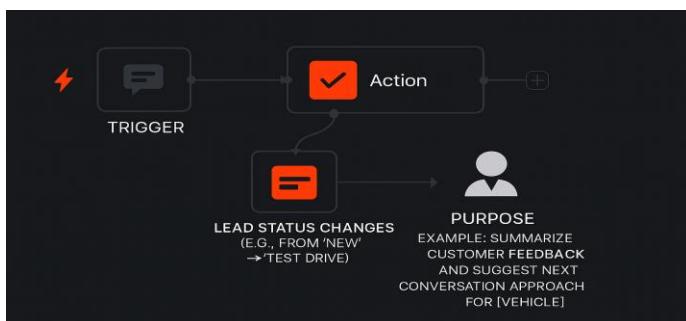
Automation 2 – AI Script Generation

- Trigger: New feedback logged in “Calls” table.
- Action: Send “feedback” to OpenAI API → Store AI script in “FeedbackSummaries.”
- Example prompt:
“*Summarize customer feedback and suggest next conversation approach for [vehicle].*”



Automation 3 – CRM Data Sync

- Trigger: Lead status changes (e.g., from “New” → “Test Drive”).
- Action: Push update to Power BI dataset or send Slack/Email alert to managers.



AI Integration Layer

- All AI actions are *prompt-based* and can be configured dynamically.
- AI scripts assist Sales and CRT teams to maintain communication quality.
- Stored outputs create a **feedback knowledge base** over time — usable for predictive models later.
- Example Use Cases:
 - Follow-up message templates.
 - Customer intent detection (from notes).
 - Lead scoring based on text sentiment.

Data Security & Access Control

- **Role-Based Authentication:** Each user (Marketing/CRT/Sales/Admin) logs in via secured role credentials.
- **Data Isolation:** Access is restricted to each user's scope.
- **Backup & Sync:** MySQL daily backups automated using cron job or n8n workflow.
- **Audit Logging:** All CRUD operations are logged for traceability.

Insights & Management View (Power BI)

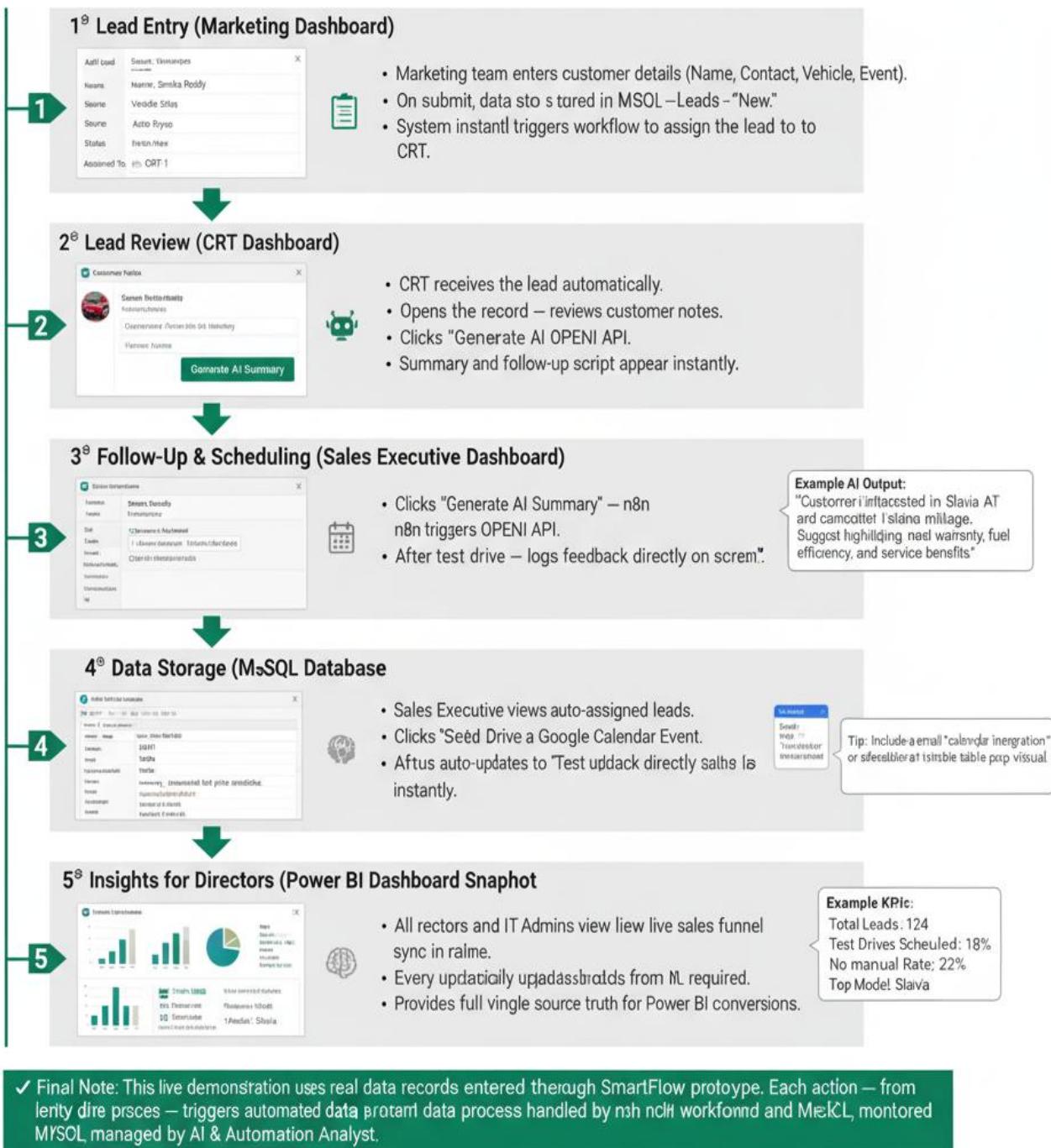
- Live Power BI dashboard shows:
 - Lead Funnel (Registered → Test Drive → Delivery)
 - Vehicle Interest Trends
 - Sales Cycle Duration
 - Conversion Rate per Source
- Helps directors visualize **ROI of automation** and **channel effectiveness**.

Future Scalability

- Integrate WhatsApp API for AI-based automated responses.
- Include Skoda Connect API for linking service/vehicle data.
- Expand to other Mahavir divisions (Volkswagen, Mercedes, Honda).
- Introduce predictive AI for lead scoring and sales forecasting.

Practical Demonstration Flow

SmartFlow Live Demonstration: Automated Sales Funnel



“SKODA SMARTFLOW Live Demonstration: Automated Sales Funnel – Powered by n8n, MySQL, and AI Integration.”