COMPONENT 4 — PROMPT LIBRARY

1. Google Sheets – Data Analysis Prompts

Prompt 1 – Generate Synthetic E-Commerce Dataset

"Generate a synthetic dataset for a small e-commerce business with columns: Order ID, Customer ID, Product Category, Purchase Amount, Date, and Location. Create around 80 rows of realistic sample data that represents typical online business transactions. Ensure the values are varied and look natural for an analytics project."

Prompt 2 – Insights Extraction

"Based on this dataset, provide high-level insights regarding sales trends, customer purchasing patterns, top product categories, and high-spending customer regions. Keep the insights concise and ready for dashboard visualisation."

2. Canva AI – Infographic Creation Prompt

Prompt 3 – Infographic for the Project Overview

"Create a professional and visually appealing infographic that summarises the project titled 'AI-Driven Customer Insight and Sales Forecasting Dashboard for Small E-Commerce Businesses'. Include key sections such as problem statement, purpose, tools used, expected impact, and deliverables. Use clean icons, business colours, and minimalistic design suitable for academic submission."

3. GitHub – Repository Documentation Prompt

Prompt 4 – ReadMe Documentation

“Write a structured and formal README file for a project based on data analytics and AI for small e-commerce businesses. Include sections such as: Project Title, Objective, Tools Used, Workflow, Dataset Description, Dashboard Overview, Chatbot Link, Website Link, Jupyter Notebook Usage, Sora AI video link placeholder, and prompt library description.”

4. Sora AI – Concept Video Prompt

Prompt 5 – Sora AI Demonstration Video

“Generate a short conceptual demo video that visually represents how an AI-powered analytics dashboard supports small e-commerce businesses in understanding their customers, forecasting sales, and improving decision-making. The video should use modern visuals, minimal text overlays, and clean transitions suitable for showcasing during a hackathon.”

5. Power BI – Visualisations Prompt

Prompt 6 – Dashboard Visualisation Guidance

“Suggest 10 appropriate visualisations for an e-commerce dataset containing columns like Order ID, Customer ID, Product Category, Purchase Amount, Date, and Location. Include a combination of cards, stacked column charts, bar charts, and line charts that focus on sales trends, customer behaviour, and product performance.”

6. Jupyter Lab – Basic Analysis Prompt

Prompt 7 – AI-Guided Data Exploration (No Cleaning)

“Provide simple, beginner-friendly Python code to load and explore an e-commerce dataset in a Jupyter Notebook. The code should include importing libraries, loading the CSV, displaying the first few rows, describing the dataset, and generating basic insights without any complex data cleaning or modelling.”

7. POE Chatbot – Chatbot Behaviour Prompt

Prompt 8 – Chatbot Instructions for POE

“Act as a business analytics assistant that helps users understand e-commerce sales, customer behaviour, and general business analytics concepts. Provide clear explanations, practical suggestions, and friendly conversational responses. Always remain professional and supportive in every interaction.”

Prompt 9 – POE Greeting Message

“Hello! I am your AI Business Analytics Assistant. I can help you explore sales insights, customer behaviour patterns, and analytics-based business strategies. How can I assist you today?”

8. Miro – Mind Map Prompt

Prompt 10 – Mind Map for Project Structure

“Create a clean and structured mind map for the project ‘AI-Driven Customer Insight and Sales Forecasting Dashboard for Small E-Commerce Businesses’. Include branches for Problem Statement, Purpose, Tools Used, Dataset, Power BI Dashboard, Website, Chatbot, Jupyter Notebook, and Final Deliverables.”

9. Figma – Visual Layout Prompt

Prompt 11 – Figma Board Design Prompt

“Design a simple, clean Figma board to visually present the overall structure of the project. Include sections for the dashboard prototype preview, infographic, mind map, chatbot interface screenshot, dataset structure, and workflow diagram. Use a minimalist layout with clear spacing and organised frames.”

10. Dorik Website – Page Content Prompt

Prompt 12 – Dorik Single Prompt

"Create the entire website content for a project that focuses on AI-powered data analytics for small e-commerce businesses. Include a project overview, problem statement, purpose, tools used, visual highlights, Sora AI video summary, GitHub links, Power BI dashboard description, and chatbot details. Maintain a formal, concise, and professional tone."

DOCUMENTATION OF THE ENTIRE PROCESS

1. Introduction

*The documentation outlines the complete workflow followed during the 24-hour Generative AI Hackathon. The project theme selected was **Data / Business Analytics**, with the objective of addressing challenges faced by small e-commerce businesses in understanding sales performance, customer trends, and forecasting. The process was executed using multiple AI tools, analytical platforms, and prototype-building environments to demonstrate a comprehensive end-to-end solution.*

2. Problem Definition

Small e-commerce businesses lack the analytical capability to extract insights from their transactional data. They struggle with forecasting demand, understanding customer behaviour, identifying high-performing products, and making informed business decisions. The finalised problem statement for the hackathon is:

"How can small e-commerce businesses leverage AI-powered analytics to improve sales forecasting, customer insights, and product performance, using simple, accessible, and low-code tools?"

3. Dataset Creation & Initial Analysis (Google Sheets)

- *A synthetic dataset was generated containing columns such as Order ID, Customer ID, Product Category, Purchase Amount, Date, and Location.*
- *The dataset consisted of approximately 100 rows and was created using ChatGPT prompts.*

- *Basic reviews of the dataset were performed even though detailed data cleaning was not conducted due to time constraints.*

- *The dataset was uploaded into Google Sheets for record keeping and for Power BI integration.*

4. Power BI Dashboard Development

- *The dataset was imported into Microsoft Power BI to create a functional analytics dashboard.*

- *A total of 10 visualisations were created, including:*

    - *Four KPI cards (Total Sales, Total Customers, Highest Category, Average Purchase Value).*

    - *Two Stacked Column Charts (Sales by Category, Sales by Location).*

    - *One Line Chart (Sales Trend over Time).*

    - *One Clustered Bar Chart (Top Customers).*

    - *Two additional visuals that support customer segmentation and purchasing behaviour.*

- *These visualisations provided a practical demonstration of analytics insights for decision making.*

5. Canva AI Infographic

- *A detailed infographic summarising the project problem, insights, dashboard overview, and AI workflow was generated using Canva AI.*

- *This infographic contributes to the deliverables by visually communicating the essence of the project.*

6. GitHub Repository Setup

- *A GitHub repository was created to store project files such as the dataset, prompt library, screenshots, and documentation.*

- *The repository also includes links to the Dorik website, the Power BI dashboard, and other embedded project assets.*

- *GitHub was used as a version-controlled environment for organising all components of the project.*

7. Dorik AI Website Prototype

- *Instead of Wix, a **Dorik AI–powered website** was created to deliver a quicker, cleaner, and more AI-friendly prototype.*

- *The website includes:*

    - *Home/Overview section*

    - *Project summary*

    - *Sora AI video*

    - *Contact/links section*

- *Only one main generative prompt was used in Dorik to structure the website automatically.*

8. Sora AI Video Creation

- *A short conceptual demo video was produced using **Sora AI** to illustrate how the AI-powered dashboard could function in a real business scenario.*

- *The video was embedded into the Dorik site as part of the prototype demonstration.*

9. JupyterLab for Guided Exploration

- ***JupyterLab** was used with basic Python cells to load the dataset and perform simple verification steps.*

- *The code executed allowed for dataset previewing and ensured compatibility with analytical workflows.*

- *This step demonstrated integration of traditional analytics tools with GenAI-supported guidance.*

10. POE Chatbot Creation

- *A live chatbot was created using **Poe** to simulate customer engagement and explain insights from the analytics project.*
- *The chatbot was configured using a custom behaviour prompt and an introductory message.*
- *No dataset cleaning or heavy analytical modelling was done inside Poe, aligning with your actual work.*

11. Figma Board (Prompt-Based Setup)

- *A Figma board was created using a structured prompt to map the layout of the dashboard, the website sections, and the user flow.*
- *This served as a visual planning space to complement other project components such as Power BI, Canva, and Dorik.*

12. Miro Mind Map

- *A Miro mind map was prepared to display the entire workflow of the project, including:*
    - *Problem definition*
    - *Dataset*
    - *Tools*
    - *Dashboard*
    - *Website*
    - *Chatbot*
    - *Prototype elements*

- *This supported clarity of thought and structured representation in Component 3 and Component 4.*

13. Prompt Library Compilation

- *A prompt library was created and uploaded to GitHub.*
- *This library includes:*
    - *Dataset-generation prompt*
    - *Power BI visualisation prompts*
    - *Canva infographic prompt*
    - *Sora video prompt*
    - *Dorik website prompt*
    - *Figma board prompt*
    - *Chatbot behaviour prompt*
    - *JupyterLab assistance prompt*
- *These prompts document exactly how each tool was used, ensuring transparency and reproducibility.*

14. Integration Attempt

- *An effort was made to unify all components through the Dorik website by embedding:*
    - *The infographic*
    - *Power BI dashboard (via link)*
    - *Chatbot link*
    - *GitHub repository*
    - *Miro map*

    - *Figma board visuals*

- *This serves as the prototype for a multi-tool AI-powered business intelligence solution.*

15. Final Reflection

Across the hackathon, I explored a wide range of AI and analytics tools. The process demonstrated how Generative AI can significantly speed up content creation, prototyping, data generation, and communication. The project showcases an end-to-end demonstration of how e-commerce businesses can apply AI for operational and strategic improvements.