# Lighthouse & Innovation Team

# Sprocket Central Pty Ltd

InsightCraft<sup>™</sup> Analytics Framework

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# Agenda

- 1. Introduction
- 2. Data Exploration
- 3. Model Development
- 4. Interpretation

#### Introduction

Welcome to InsightForge Division, the strategic hub at KPMG. Tasked with analyzing a new list of 1000 potential customers, our focus is on unlocking insights from their demographics and attributes. Despite lacking transaction history, our goal is clear: optimize resource allocation for targeted marketing, enhancing performance by honing in on high-value customers. Join us in transforming data into actionable strategies, driving success through precision and innovation. Welcome to the heart of strategic marketing at KPMG—welcome to InsightForge Division.

## **Data Exploration**

#### **Unveiling Variable Distributions and Biases in Data Exploration**

In the data exploration phase, we delve into the characteristics of the provided fields, examining variable distributions and potential demographic biases. We assess data validity, identifying any skewness, particularly towards certain demographics. To mitigate biases, we explore external data sources, incorporating ABS data for geographic insights. Correlation analysis uncovers interactions between variables, helping us understand multicollinearity. Transformations, such as appropriate formatting and aggregation, are applied for analysis readiness. Assumptions, limitations, and exclusions are documented, setting the stage for continuous improvement in subsequent stages.

## **Model Development**

#### Navigating the Model Development Frontier for Informed Decision-Making

In the Model Development phase, we embark on the journey of transforming insights into actionable strategies. Leveraging the enriched dataset from the Data Exploration phase, we delve into the intricacies of constructing predictive models. This involves selecting appropriate algorithms aligned with our objectives, fine-tuning model parameters, and employing techniques to enhance predictive accuracy. Rigorous training and validation processes ensure robust model performance. Our commitment is not just to build models, but to craft intelligent tools that discern customer behavior patterns and inform strategic decision-making. As we step into the Model Development arena, the synergy of data and innovation takes center stage, propelling us toward a future where predictive analytics drives sustainable success.

## Interpretation

#### Interpreting Model Outputs for Strategic Decision-Making

In the Interpretation phase, our focus shifts to extracting meaningful insights from the developed models. We dissect the model outputs, examining the relationships between variables and deciphering the significance of key features. This phase involves not only understanding the technical aspects of model performance but also translating those findings into actionable business recommendations. Clarity is sought on how model predictions align with our initial objectives and how they can be applied to optimize resource allocation for targeted marketing. Through comprehensive interpretation, we bridge the gap between complex analytics and practical, business-centric strategies, ensuring that the results generated have real-world impact and contribute to the overarching success of Sprocket Central Pty Ltd.

# **Thanking You**

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