### **Project Lifecycle**

#### June 19: Introduction to the Project and Problem Description

#### 1. Project Introduction:

- o Provide an overview of the chosen project.
- Explain the problem the project aims to solve.

### 2. Problem Description:

- o Detail the specific problem or challenge the project addresses.
- Include context and background information.

#### 3. **Tasks**:

Define project goals and objectives.

# June 26: Data Exploration and Problem Specification

#### 1. Data Set Introduction:

- o Describe the data set(s) being used.
- o Include sources, data types, and structure.

#### 2. Problem Identification:

- o Identify problems encountered during initial data exploration.
- o Specify issues like missing values, inconsistencies, or anomalies.

#### 3. Solutions to Problems:

- o Propose solutions to the identified problems.
- o Detail the steps taken to address these issues.

### July 2: Data Cleaning Techniques and Peer Review

# 1. Data Cleaning Techniques:

Three ways to deal with missing value and NA/WOE.

#### 2. Peer Review:

o Review the work done by peers.

### July 9: Exploratory Data Analysis (EDA)

### 1. EDA Introduction:

- Describe the purpose of EDA.
- Outline the methods used for EDA.

# 2. Finding Correlations:

- o Identify correlations among variables.
- Use statistical methods and visualizations to illustrate findings.

#### July 16: Presentation of EDA

### 1. Presentation Preparation:

- o Create a PowerPoint presentation for business users and technical users.
- Include key findings from the EDA, visualizations, and recommendations of models.

### 2. Presentation Content:

- o Overview of the EDA process and results.
- o Detailed explanation of correlations and insights.
- Recommendations based on the EDA findings.

# July 23: Model Development

### 1. Model Selection:

o Develop three models: Linear Regression, Boosting, and Ensemble methods.

# 2. Model Comparison:

- o Compare the performance of the models using appropriate metrics.
- o Document the strengths and weaknesses of each model.

# July 30: Model Selection and Final Presentation

# 1. Best Model Selection:

• Select the best-performing model based on evaluation metrics.

# 2. Final Presentation Preparation:

- o Create a PowerPoint presentation.
- o Include model evaluation, selection rationale, and implementation plan.

# 3. **Presentation Content**:

- o Summary of the project lifecycle.
- o Detailed explanation of the selected model and its benefits.
- o Implementation plan and next steps.