**Summary of all that I did in this project**

**Python**

1. **Library Setup**:
   * Imported necessary libraries: pandas, numpy, matplotlib, seaborn, sklearn, and shap.
2. **Data Preprocessing**:
   * Loaded dataset (Dataset.csv) using pandas.
   * Checked for and removed any missing values.
   * Dropped irrelevant columns: 'EmployeeCount', 'Over18', 'StandardHours', 'EmployeeNumber'.
   * Converted the target column Attrition to binary (Yes = 1, No = 0).
   * Encoded categorical columns using LabelEncoder.
3. **Exploratory Data Analysis (EDA)**:
   * Plotted:
     + Countplot of **Attrition by Department**.
     + Boxplot of **MonthlyIncome vs Attrition**.
     + Histogram of **YearsSinceLastPromotion vs Attrition**.
4. **Modeling**:
   * Split data into training and test sets (80/20).
   * Trained a **Decision Tree Classifier**.

**Power BI**

1. **Visuals Created**:
   * **Stacked Column Chart**: Count of Attrition by **JobSatisfaction** and **Department**.
   * **Stacked Column Chart**: Count of EmployeeCount by **YearsSinceLastPromotion** and **Attrition**.
   * **Heatmap**:
     + Based on **JobRole** and shows **Count of Attrition**.
2. **Slicers Used**:
   * Gender, OverTime, and Department slicers for filtering the visuals.

Further detailed explanation is provided in the README file.