# Slide 1: Mobile Price Classification Using Machine Learning

## Title: "Mobile Price Classification Using Machine Learning" Description: This presentation aims to explore the application of machine learning techniques in the domain of mobile price classification. By leveraging machine learning algorithms, we can automate the process of categorizing mobile phones into distinct price ranges based on their specifications and features.

# Slide 2: Problem Statement

## Title: "Problem Statement" Description: The problem we're tackling revolves around the challenge of assisting consumers in making informed decisions when purchasing mobile phones. With the wide array of options available, it can be daunting for consumers to navigate through the various features and price points. Our goal is to develop a predictive model that can accurately classify mobile phones into predefined price ranges, thus simplifying the decision-making process for consumers.

# Slide 3: Introduction to Libraries and Models

## Title: "Introduction to Libraries and Models" Description: In this section, we'll introduce the key libraries and machine learning models utilized in our project. We'll leverage libraries such as pandas and numpy for data manipulation and preprocessing, matplotlib and seaborn for data visualization, and machine learning models like K-Nearest Neighbors (K-NN) for classification tasks. These tools enable us to efficiently analyze the dataset and build predictive models.

# Slide 4: Dataset Details

## Title: "Dataset Details" Description: Our dataset comprises a comprehensive set of attributes for various mobile phones, including battery power, camera features, memory, and connectivity options. Each column in the dataset represents a specific attribute, while the rows correspond to individual mobile phone entries. Understanding the structure and content of the dataset is crucial for performing meaningful analysis and building accurate models.

# Slide 5: Exploratory Data Analysis (EDA) - Part 1

## Title: "Exploratory Data Analysis (EDA) - Part 1" Description: In this segment, we'll delve into the exploratory data analysis (EDA) phase, where we visually explore the relationships between different features and the price range of mobile phones. Through visualizations such as correlation matrices, scatter plots, and histograms, we aim to identify patterns and insights within the data that may inform our modeling approach.

# Slide 6: Exploratory Data Analysis (EDA) - Part 2

## Title: "Exploratory Data Analysis (EDA) - Part 2" Description: Building upon the insights gained in the previous section, we'll further investigate the dataset using advanced visualizations such as pair plots and KDE (Kernel Density Estimation) plots. These visualizations allow us to uncover more nuanced relationships between features and gain a deeper understanding of the dataset's distribution and characteristics.

# Slide 7: Model and Evaluation - Part 1

## Title: "Model and Evaluation - Part 1" Description: This section focuses on the model development and evaluation process. We'll introduce the K-Nearest Neighbors (K-NN) algorithm, which is a popular choice for classification tasks due to its simplicity and effectiveness. Additionally, we'll discuss the evaluation metric, such as accuracy score, used to assess the performance of our model.

# Slide 8: Model and Evaluation - Part 2

## Title: "Model and Evaluation - Part 2" Description: Here, we'll provide a detailed overview of the model training process, including data preprocessing, feature selection, and model fitting. We'll also evaluate the performance of our trained model using test data and interpret the evaluation results. Additionally, we'll discuss any insights gained from analyzing the model's predictions.

# Slide 9: Conclusion

## Title: "Conclusion" Description: In conclusion, we'll summarize the key findings and implications of our project. We'll highlight the effectiveness of machine learning techniques in automating the mobile price classification process and facilitating informed decision-making for consumers. Furthermore, we'll discuss potential avenues for future research and improvement in this domain.

# Slide 10: References (Optional)

## Title: "References" or "Acknowledgments" Description: If applicable, this slide will include references to datasets, libraries, research papers, or individuals who contributed to the project. Properly citing sources ensures transparency and acknowledges the contributions of others to our work.