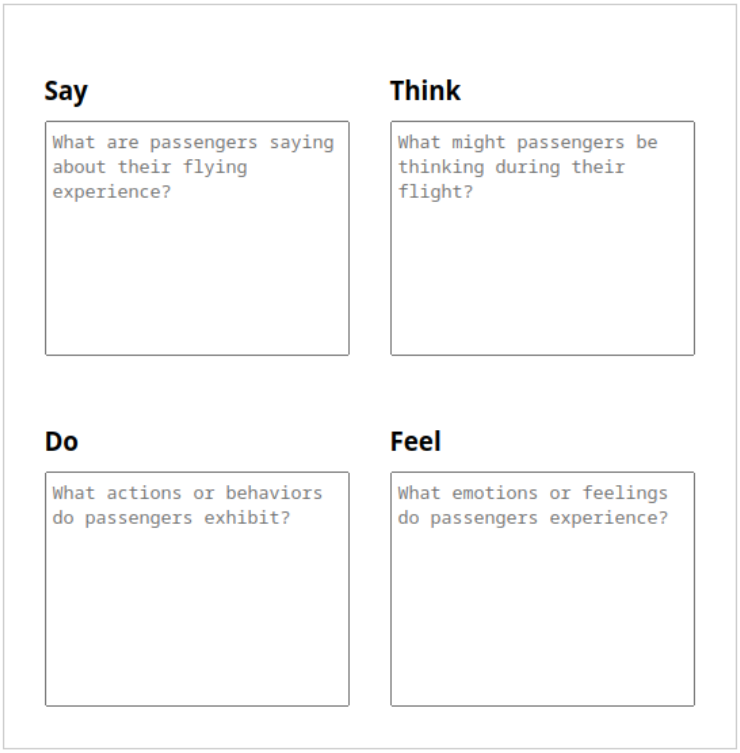
Airline Passenger Satisfaction

Problem Statement

Airline companies strive to provide a satisfactory flying experience to their passengers. However, identifying the factors that contribute to passenger satisfaction can be challenging due to the diverse range of variables involved. In order to improve their services and enhance passenger experience, airline companies need an efficient and reliable method to predict passenger satisfaction levels and identify areas that require improvement.

The problem this project aims to address is the accurate prediction of passenger satisfaction based on various features such as airline, flight duration, cabin class, seat comfort, inflight entertainment, and onboard service. By utilizing machine learning techniques, the goal is to develop a predictive model that can classify passengers as either satisfied or dissatisfied based on their flying experience.

Empathy Map



Brainstorming and Prioritizing

- Highlight the data collection process: Specify how the data will be collected from online surveys, social media platforms, and other publicly available sources. Mention the importance of data quality and the steps taken to clean and preprocess the data.

- Feature selection: Discuss the specific features that will be considered in the analysis, such as airline, flight duration, cabin class, seat comfort, inflight entertainment, and onboard service. Explain the rationale behind selecting these features and their potential impact on passenger satisfaction.

- Model exploration: Mention the machine learning models that will be explored, including logistic regression, decision trees, random forests, and neural networks. Briefly explain the strengths and weaknesses of each model and their suitability for this project.

- Performance evaluation: Describe the metrics that will be used to evaluate the models, such as accuracy, precision, recall, and F1 score. Highlight the importance of selecting the best performing model for accurate predictions.

- Application development: Emphasize the creation of a web-based application that will allow airline companies to predict passenger satisfaction and identify areas for improvement. Explain the real-time insights that the application will provide and how they can be utilized by airline companies to enhance their services.

- Potential benefits: Discuss the potential benefits that can be derived from the project, such as improved customer satisfaction, increased customer loyalty, and enhanced passenger experience. Highlight how the application can help airlines make data-driven decisions and prioritize areas for improvement.

- Future enhancements: Consider mentioning potential future enhancements for the project, such as incorporating sentiment analysis from social media data or integrating real-time feedback collection during flights.