Airline

AIRLINE DELAYS

TEAM:

Ashley, Gopi, Kiena, Tracy, Zainab

BOARDING PASS

- **FLIGHT**
  B345
- **GATE**
  D8
- **SEAT**
  29E

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Project Overview

Airlines Dataset to predict Delays & Airline Delays with Weather and Airport Detail

In the present world the major components of a transportation system include a passenger airline. With time, we have evolved and improved the airline transportation system and operations. However, even in today's day and time, flight delays cause a lot of inconvenience to our modern passengers. Every year approximately 25-30% of flights are delayed, costing passengers and the operations approximately more than $28 billion in money and their time.

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Flights:
FREEPIK | FLATICON | STORYSET | WEPIK | VIDFY

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Purpose/Problem Statement

The purpose of this project is to predict whether a given flight will be delayed, given the information of the scheduled departure.

01 Which airline has the most delayed flights?

02 Which routes have the most delayed occurrences?

03 Will flying time impact delay occurrences?

04 Which date of the week will have the most delay? Weekend vs Weekday

05 Which airport (departure/arrival) is the worst?

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Purpose/Problem Statement

NOTE:

By conducting an analysis of flight times and metrics regarding airlines, day of travel, and airport arrivals/ departures we can predict what flights are more likely to experience delays. Once patterns are identified, solutions can be developed to address the issues.

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The Roles

- Circle - Zainab
- Square - Gopi
- Triangle - Ashley/ Tracy
- X - Kiena

NOTE:

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Proposal of Machine Learning Model

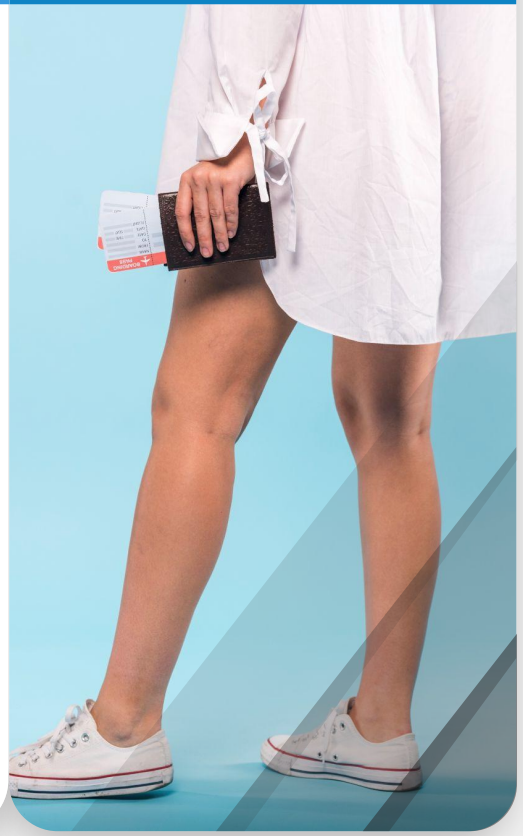
NOTE:

Supervised Learning- Logistic Regression- binary result Delayed/Not delayed

- **What variables will be used for the machine learning model?**

  y= "Dep_Del15"

  X= other columns (Carrier and Airport columns need to be converted to numerical data)



Proposal of Machine Learning Model

NOTE:

1) Create a model with LogisticRegression().
2) Train the model with model.fit().
3) Make predictions with model.predict().
4) Validate the model with accuracy_score().

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Tableau Dashboard

LINK:

https://public.tableau.com/views/Book1_TC/DelayOccurrencesvsDistanceGroup?:language=en-GB&publish=yes&:display_count=n&:origin=viz_share_link

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