Case Study: Flight Delays

A large travel agency has asked us to predict whether a flight will be canceled based on several factors. The agency can sell tickets for only three airlines (AA, UA, and DL) and would like to be able to advise its customers on which airline has the least risk of cancellation. Using the dataset provided:

1. Build a model to predict whether a flight will be canceled.
2. Write your own function that uses the model output to predict whether a future flight will be canceled.
3. Provide fully commented code and model output for your analysis.
4. Provide a recommendation on which airline is most reliable.
5. Create a few PPT slides - assume content will be used to present to client (travel agency). Client is non-technical, but wants to understand not only the recommendations but also how you arrived at such recommendations.

The dataset includes the following fields.

Field	Name Type	Description
Canceled	Binary	Canceled = 1
Month	Integer	Jan = 1
DepartureTime	Integer	Military Time (1:00 PM = 1300)
UniqueCarrier	String	Airline Carrier Code
SchedElapsedTime	Integer	Scheduled Flight time in minutes
ArrDelay	Integer	Arrival delay in minutes
DepDelay	Integer	Departure delay in minutes

Field	Name Type	Description
Distance	Integer	Distance in miles