

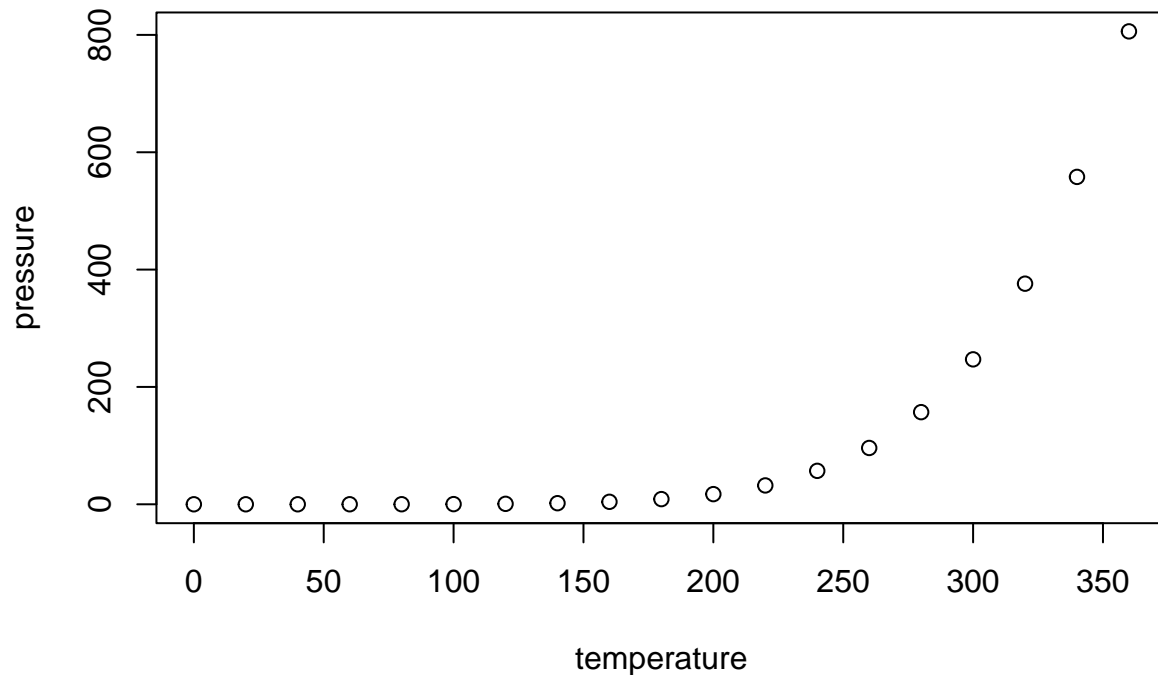
Final Project: Predicting Flight Delays using Flight Characteristics and Weather Data

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Introduction

To paraphrase a well-known idiom, ‘nothing is certain but death, taxes, and delayed flights.’ Flight delays are an inconvenience that almost all aviation passengers will experience at some point in their travels. Yet the burden of flight delays is not the same for all passengers. In particular, US passengers are not entitled to compensation for delays¹. Yet, between 2013 and 2022, approximately one in every five flights from US airports was delayed by at least 15 minutes². With more than 10 million scheduled passenger flights in the US each year³, the cost to passengers of flight delays is substantial. Indeed, the *Federal Aviation Administration* estimates that flight delays in the US from 2016 to 2019 cost US\$62.6billion in total. Short of relying on airlines to inform them of expected delays (as late as 30 minutes before scheduled departure), there is little that US passengers can do to reliably avoid flight delays. Therefore, I apply the classification methods discussed in class to determine what factors passengers might consider to avoid flight departure delays. I also consider the extent to which these factors are able to predict the length of departure delays that passengers might experience.



¹source: www.transportation.gov

²source: www.bts.gov

³source: www.faa.gov