Stat 261, Lab 7

David Stenning

```
library(tidyverse)
library(nycflights13)
```

In this lab we will work with the `nycflights13` data.

1. Add the latitude and longitude of each airport destination to the `flights` table using a `join` function. You will find the data on latitude and longitude in the `airports` table.
2. Create a table with the `year-month-day-flight-tailnum` combinations that have more than 1 flight (careful about missing `tailnum`). Use this table to filter the flights table and then select `carrier`, `flight`, `origin` and `dest`. Which airline used the same flight number for a plane that made a trip from La Guardia to St. Louis in the morning and from Newark to Denver in the afternoon?
3. One of the exercises in the lecture 7 notes asked you to create a table called `top_dep_delay` from the flights table. `top_dep_delay` was comprised of the year-month-days with the 3 largest total delays, where total delay is defined as the sum of the `dep_delay` variable for each year-month-day. Recreate `top_dep_delay` for this lab exercise. For each of the three top-delay days, report the median, third quartile and maximum of the dep_delay variable in `flights`.