Practice Exam

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Setup

Download the Accidents0515.csv data from Kaggle. It is here:

Accident Data (https://www.kaggle.com/silicon99/dft-accident-data/data)

This gives information on every car accident in the UK between 2005 and 2015.

1. Read it in:

```
accidents<-read.csv("Accidents0515.csv",header=TRUE,stringsAsFactors=FALSE)
```

This can take a few minutes. Right away, store the accidents data frame into something else, so you don't change your original source of data:

```
df<-accidents
```

The Date column has the date of each accident, but it is character data. The format looks like this: 21/01/2005. Note that the day comes first. Using the lubridate package, change this column into dates:

```
df$Date<-dmy(df$Date)
```

Now, use dplyr to keep only the dates from 2005:

```
df<-df%>%
  filter(Date<="2005-12-31")
```

Finally, the Day_of_Week column is also character data. Change it into a factor:

```
df$Day_of_Week<-factor(df$Day_of_Week,levels=c("1","2","3","4","5","6","7"))
```

You're ready to go now.

Histogram

Calculate the number of accidents occuring on each day of the week. Create a histogram for this. You can see what this looks like by going here:

Dashboard (https://bendazz.github.io/accidents_dash/)

It is the third plot.

Year-Long Time Series

Calculate the number of accidents occuring on each day of the year. Create a time series for this. You can see what this looks like by going here:

Dashboard (https://bendazz.github.io/accidents_dash/)

It is the first plot.

December Time Series

Hmmmm…The year-long time series dips precipitously at the end. Let's see what this is all about. Create a time series just for December. Label the x-axis with just the days, but use every day. You can see what this looks like by going here:

Dashboard (https://bendazz.github.io/accidents_dash/)

It is the second plot.

The Dashboard

Make a dashboard out of your three plots. Name your file with your last name. In other words, if your name is Jones, name your file jones.Rmd. DO NOT put this file on Github. Automatic F if you do. Instead, submit it here:

Submission Link (https://www.dropbox.com/request/xkflRliYFnlzOkJ1Yew1)