Testing a very basic function in R

Default chunk options

Required libraries

```
library(RPostgreSQL)
```

```
## Loading required package: DBI
```

```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.2.1 --
```

```
## ✓ ggplot2 2.2.1     ✓ purrr   0.2.4
## ✓ tibble  1.4.1     ✓ dplyr   0.7.4
## ✓ tidyr   0.7.2     ✓ stringr 1.2.0
## ✓ readr   1.1.1     ✓ forcats 0.2.0
```

```
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(dbplyr)
```

```
##
## Attaching package: 'dbplyr'
```

```
## The following objects are masked from 'package:dplyr':
##
##     ident, sql
```

```
library(rjson)
library(DBI)
```

Get the auxiliary data

```
source("get_HMRC_aux_data.R")
list1 <- get_HMRC_aux_data()
comcode <- data.frame(Reduce(rbind, list1[1]))
port    <- data.frame(Reduce(rbind, list1[2]))
country <- data.frame(Reduce(rbind, list1[3]))
```

Find the comcodes for

- Chicken
- Beef
- Cucumbers (watch out, beacuse there are *sea cucumbers*!)

Figure 1: A sea cucumber in all its glory. This creature kills hundreds of people every year.

```
cc_chicken      <- comcode[grep('CHICKEN',   toupper(comcode$description)),]
cc_all_cucumber <- comcode[grep('CUCUMBER',  toupper(comcode$description)),]
cc_cucumber     <- cc_all_cucumber[grep('VEGETABLES',toupper(cc_all_cucumber$description)),]
cc_beef         <- comcode[grep('BEEF',      toupper(comcode$description)),]
```

This is Warren's magic with a little bit of extra work

```
source("get_Comtrade_data.R")
polish_chicken   <- get_Comtrade_data(201601,201601,"default","02071","616") %>%
  select(-classification,-aggregate_level,-is_leaf_code,-trade_flow_code)
spanish_cucumber <- get_Comtrade_data(201601,201601,"default","2001","724") %>%
  select(-classification,-aggregate_level,-is_leaf_code,-trade_flow_code)
brazilian_beef   <- get_Comtrade_data(201601,201601,"default","16025","76") %>%
  select(-classification,-aggregate_level,-is_leaf_code,-trade_flow_code)
```

Get the price in usd per kilogram

```
polish_chicken   <- polish_chicken   %>% mutate(price_kg_usd = trade_value_usd/netweight_kg)
spanish_cucumber <- spanish_cucumber %>% mutate(price_kg_usd = trade_value_usd/netweight_kg)
brazilian_beef   <- brazilian_beef   %>% mutate(price_kg_usd = trade_value_usd/netweight_kg)
```

Plot the pdf of the polish chicken in Exports

```
ggplot(data=polish_chicken %>% filter(trade_flow=="Exports")) +
  geom_histogram(aes(price_kg_usd),bins=20)
```