Big_R_Assignment

```
library(readxl) # For loading Excel files
library(kableExtra) # For table formatting
library(ggplot2) # For graphs
library(tinytex) # For making a pdf
library(tibble) # For the temporary data
library(dplyr)
```

```
##
## Attaching package: 'dplyr'
```

```
## The following object is masked from 'package:kableExtra':
##
##     group_rows
```

```
## The following objects are masked from 'package:stats':
##
##     filter, lag
```

```
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
```

```
library(tidyr)
library(RColorBrewer) # For heat map
options(scipen=999) # Fix y-axis formats (for R in general)
```

```
data <- read_excel("data/25730.xlsx",1)
data$date <- as.Date(data$date)
data[data<0] <- 0 # To simplify: We set negative values to zero

Country1<-"Sweden"
Country2<-"Peru"
Country3<-"El Salvador"
Country4<-"Russia"
Country5<-"Cambodia"


cat(Country1)
```

```
## Sweden
```

```
cat(Country2)
```

```
## Peru
```

```
cat(Country3)
```

```
## El Salvador
```

```
cat(Country4)
```

```
## Russia
```

```
cat(Country5)
```

```
## Cambodia
```

```
data<-data[data$location==Country1|data$location==Country2|data$location==Country3|data$location==Counti
data$date1<-as.numeric(format(as.Date(data$date), "%m"))
data$date2<-as.numeric(format(as.Date(data$date), "%Y"))
data$date3<-data$date2+data$date1*0.01

country<-data$location
month<-format(data$date3,digits=2, nsmall=2)
cases<-round(data$new_cases_per_million, 0)

df<-data.frame(country,month,cases)

df<-df %>%
  group_by(country,month) %>%
  summarise(cases=sum(cases))
```

```
## `summarise()` has grouped output by 'country'. You can override using the
## `.groups` argument.
```

```
df<-spread(df,month,cases)

df<-with(df, df[order(df$country, decreasing = TRUE),])

kable(df,
      format="latex",
      caption="New Cases per million per Month",
      align=rep('r',5),
      booktabs=TRUE) %>%
  kable_styling(latex_options =
                  c("striped", "hold_position", "scale_down"))
```

Table 1: New Cases per million per Month

country	2020.01	2020.02	2020.03	2020.04	2020.05	2020.06	2020.07	2020.08	2020.09	2020.10	2020.11	2020.12	2021.01	2021.02	2021.03	2021.04	2021.05	2021.06	2021.07	2021.08	2021.09	2021.10	2021.11	2021.12	2022.01	2022.02	2022.03	2022.04	2022.05	2022.06	2022.07	2022.08
Sweden	NA	1	460	1603	1630	2794	876	699	813	3010	11346	18558	12380	8633	14099	16119	9064	2055	960	2559	2490	1779	3186	10502	72197	35414	4462	1249	672	1075	1960	NA
Russia	0	0	12	717	2063	1662	1321	1062	1230	2999	4618	5867	4692	2685	2039	1766	1810	3005	5070	4381	4004	6729	7514	5870	9304	30953	9797	2304	1012	671	1169	5465
Peru	NA	NA	30	1065	3783	3582	3628	7108	4880	2622	1847	1560	3651	5506	6672	7433	4629	2863	1759	1133	762	785	1026	1795	27961	8238	888	538	NA	1360	8397	5635
El Salvador	NA	NA	5	58	336	620	1615	1440	NA	751	810	1159	1382	826	718	711	714	802	1243	1179	1629	1437	1011	340	2084	3367	742	164	105	1091	3353	0
Cambodia	0	0	5	0	0	1	5	1	0	0	0	2	3	21	96	663	1008	1222	1619	952	1182	355	95	18	53	537	321	39	0	1	28	45