# Assignment_5_6_Vayuvegula_Soma_Shekar_R

Soma Shekar Vayuvegula

01/21/2023

```
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##     filter, lag
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
## -- Attaching packages --------------------------------------- tidyverse 1.3.2 --
## v tibble  3.1.7     v purrr   0.3.4
## v tidyr   1.2.0     v stringr 1.4.0
## v readr   2.1.2     v forcats 0.5.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
##
## Attaching package: 'reshape2'
##
##
## The following object is masked from 'package:tidyr':
##
##     smiths
##
##
##
## Attaching package: 'data.table'
##
##
## The following objects are masked from 'package:reshape2':
##
##     dcast, melt
##
##
## The following object is masked from 'package:purrr':
##
##     transpose
##
##
## The following objects are masked from 'package:dplyr':
##
##     between, first, last
```

```
##
##
##
## Attaching package: 'plotly'
##
##
## The following object is masked from 'package:ggplot2':
##
##     last_plot
##
##
## The following object is masked from 'package:stats':
##
##     filter
##
##
## The following object is masked from 'package:graphics':
##
##     layout
```

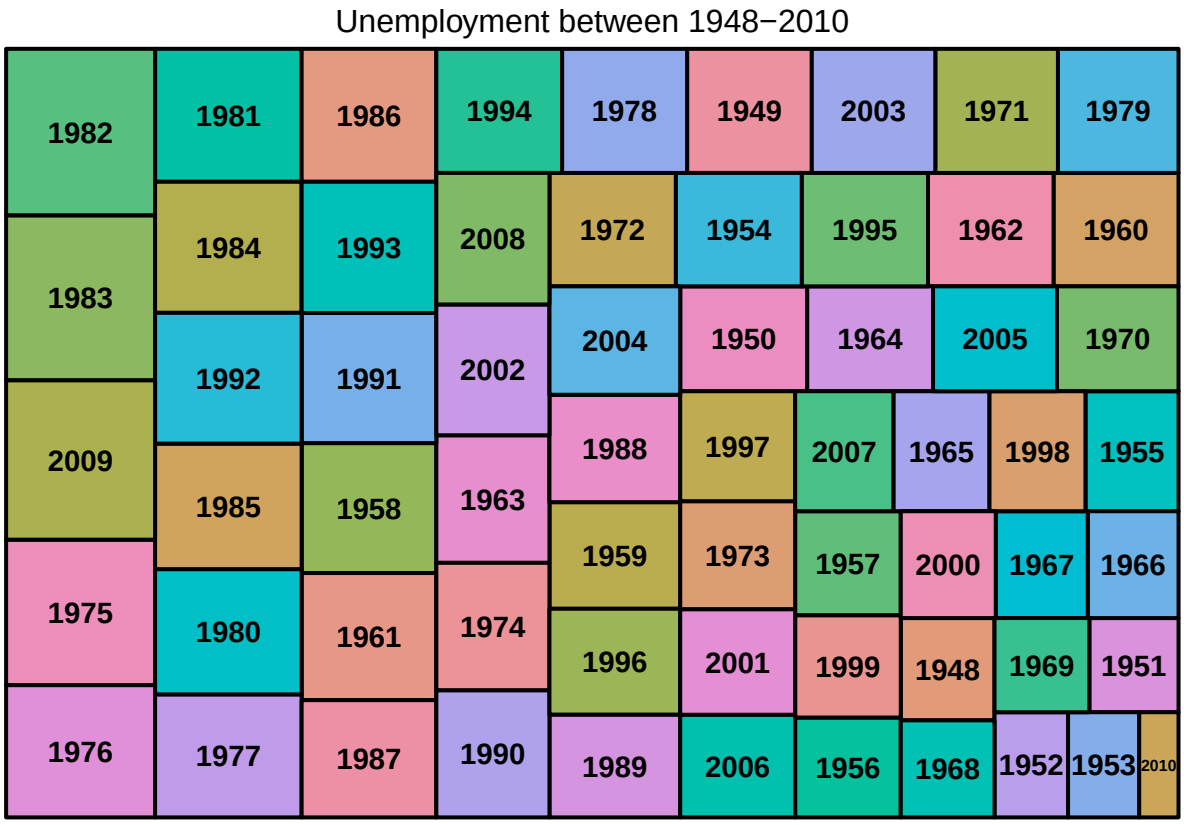
```
df_unemp<-read.csv("unemployement-rate-1948-2010.csv")
head(df_unemp,5)
```

```
##     Series.id Year Period Value
## 1 LNS14000000 1948    M01   3.4
## 2 LNS14000000 1948    M02   3.8
## 3 LNS14000000 1948    M03   4.0
## 4 LNS14000000 1948    M04   3.9
## 5 LNS14000000 1948    M05   3.5
```

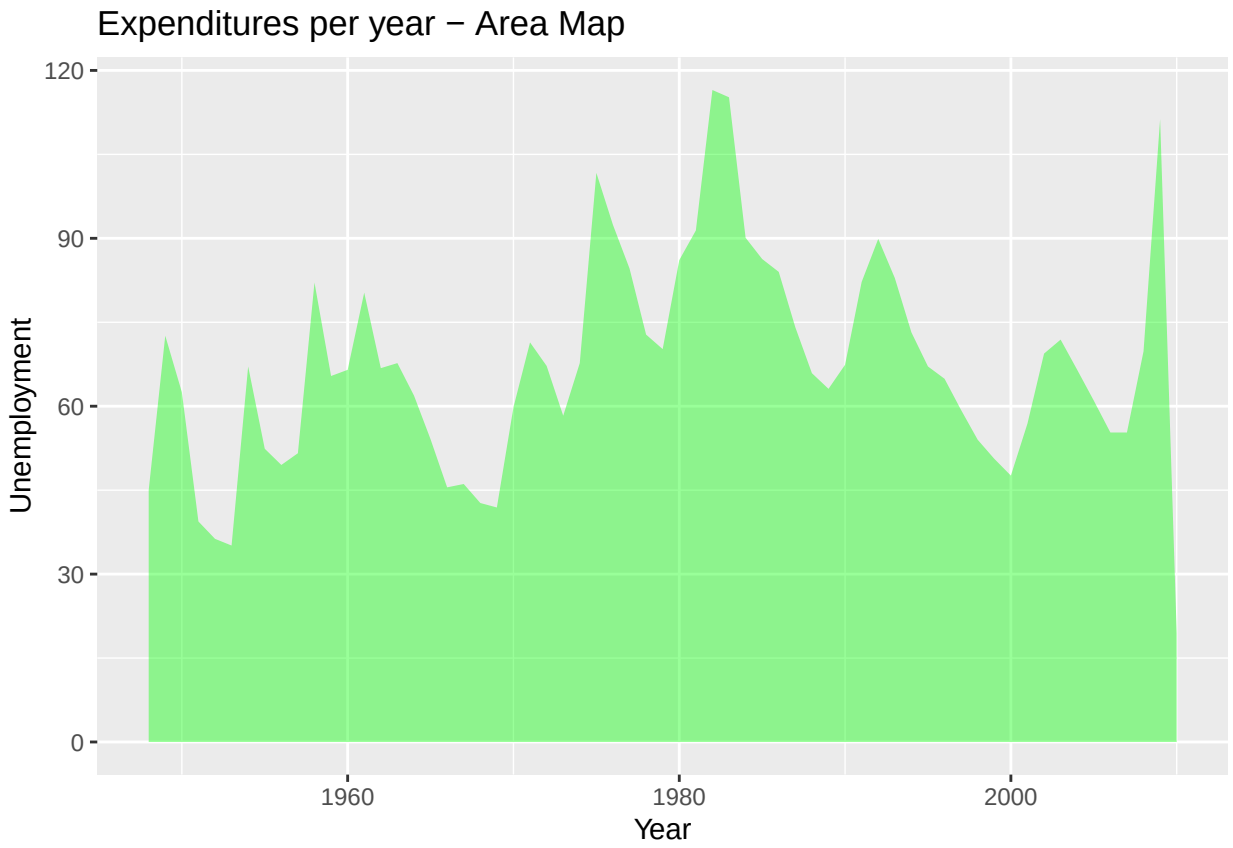
```
df_exp<-read.table("expenditures.txt",sep='\t',header=TRUE)
head(df_exp,5)
```

```
##   year            category expenditure sex
## 1 2008                Food        6443   1
## 2 2008 Alcoholic Beverages         444   1
## 3 2008             Housing       17109   1
## 4 2008             Apparel        1801   1
## 5 2008      Transportation        8604   1
```

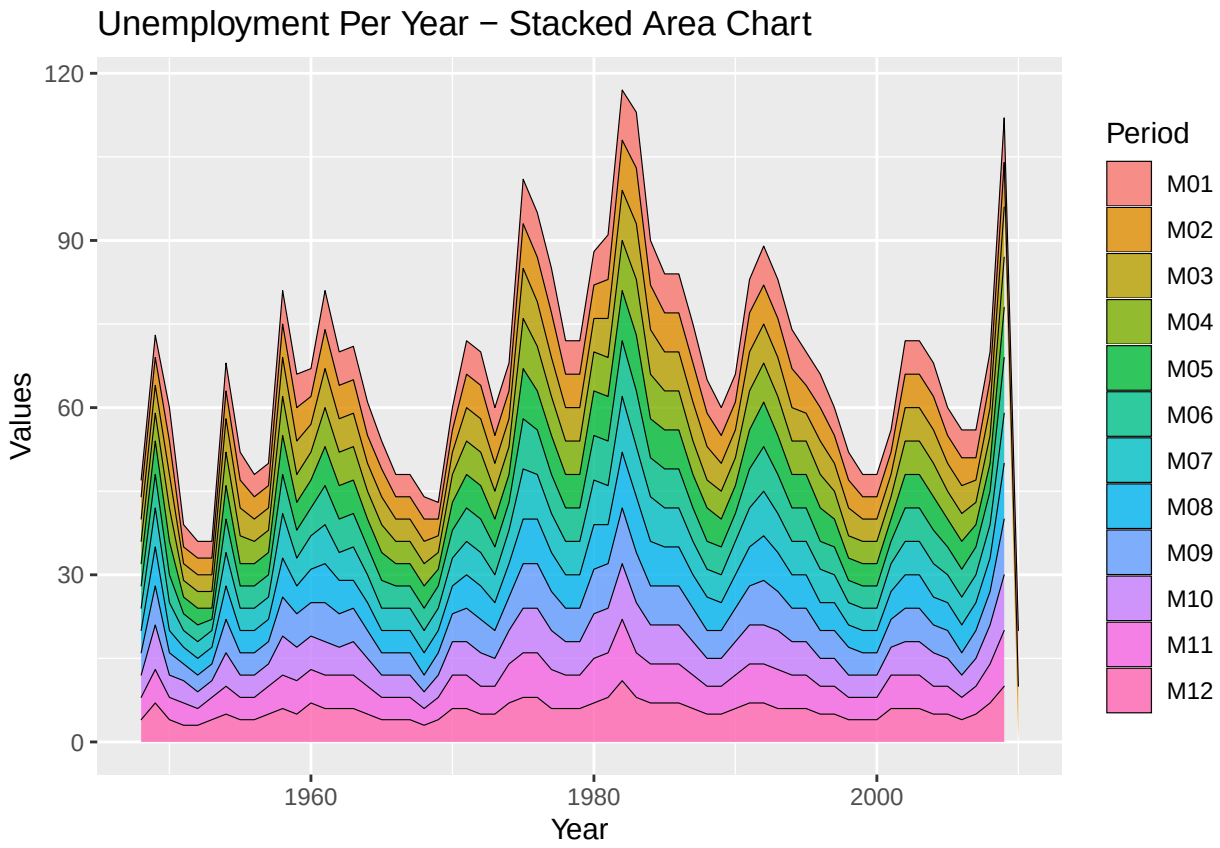
```
exp_agg_df<-aggregate(df_unemp$Value,by=list(Year=df_unemp$Year),FUN=sum)
group<-exp_agg_df$Year
value<-exp_agg_df$x
df_exp_agg<-data.frame(group,value)
treemap(df_exp_agg,index="group",vSize="value",type="index",title="Unemployment between 1948-2010",font
```




```
ggplot(df_exp_agg,aes(x=group,y=value))+geom_area(fill="green",alpha=0.4)+
  labs(x="Year",y="Unemployment")+ggtitle("Expenditures per year - Area Map")
```




```
Values<-round(df_unemp$Value,0)
df1<-data.frame(Year=df_unemp$Year,Period=df_unemp$Period,Values=round(df_unemp$Value,0))
ggplot(df1,aes(x=Year,y=Values,fill=Period))+geom_area(colour="black",size=0.2,alpha=0.8)+ggtitle("Unemp
```


Unemployment Per Year − Stacked Area Chart
120
90
60
30
0
Values
1960
1980
2000
Year
Period
M01
M02
M03
M04
M05
M06
M07
M08
M09
M10
M11
M12