Assignment_Week_3&4_Venkidusamy_KesavAdithya

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```
knitr::opts_chunk$set(echo = TRUE)

library(readxl)
library(ggplot2)
library(tidyverse)
```

```
## Warning: package 'tidyverse' was built under R version 4.1.3
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --
```

```
## v tibble  3.1.4     v dplyr   1.0.7
## v tidyr   1.1.4     v stringr 1.4.0
## v readr   2.0.2     v forcats 0.5.1
## v purrr   0.3.4
```

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

```
library(treemapify)
```

```
## Warning: package 'treemapify' was built under R version 4.1.3
```

Data Loading

```
post_df <- read_excel("E:/Personal/Bellevue University/Course/github/dsc640/Week 3&4/us-postage.xlsm")
head(post_df)
```

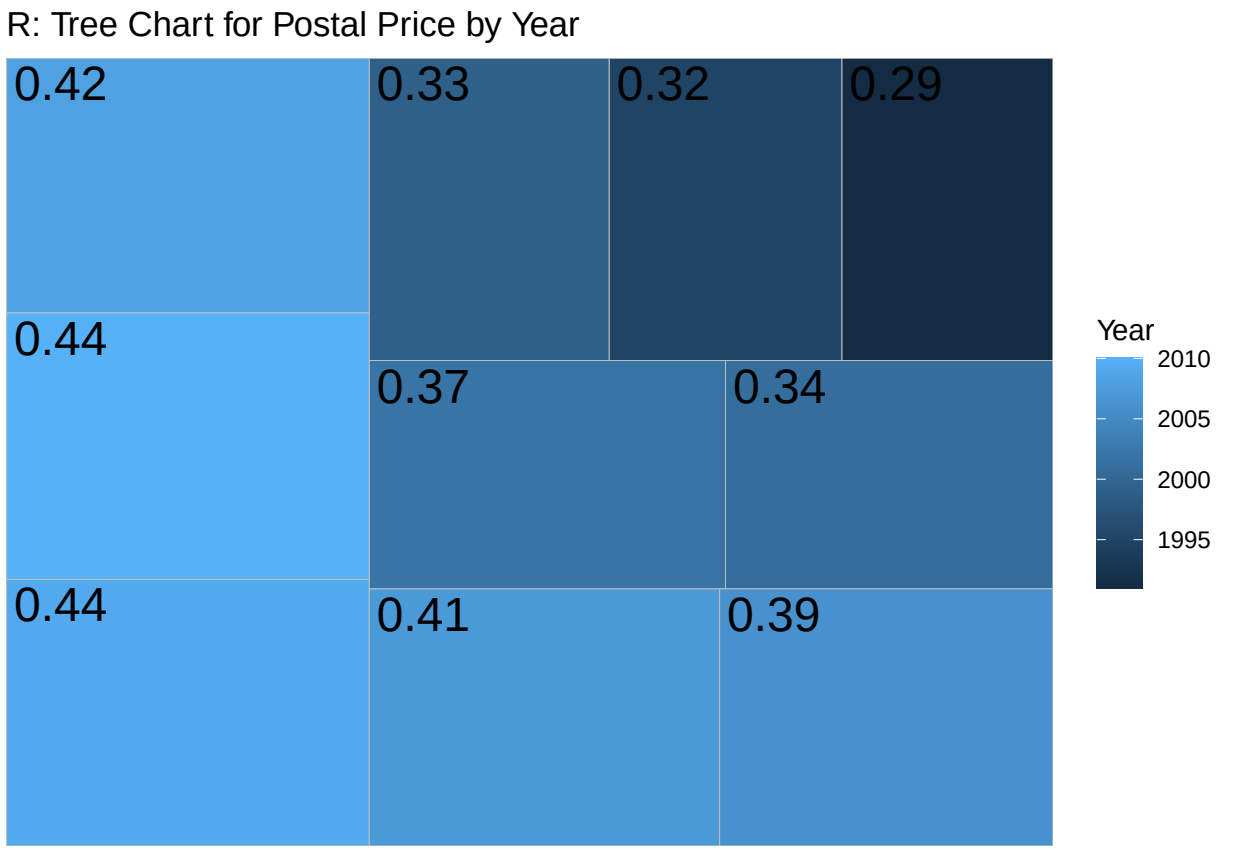
```
## # A tibble: 6 x 2
##    Year Price
##   <dbl> <dbl>
## 1  1991  0.29
## 2  1995  0.32
## 3  1999  0.33
## 4  2001  0.34
## 5  2002  0.37
## 6  2006  0.39
```

```
# Total number of records present in the data set
nrow(post_df)
```

```
## [1] 10
```

```
## Create Tree Chart

ggplot(post_df, aes(area = Price, fill = Year, label = Price)) + geom_treemap() + geom_treemap_text() +
```




```
pop_df <- read_excel("E:/Personal/Bellevue University/Course/github/dsc640/Week 3&4/world-population.xls
head(pop_df)
```

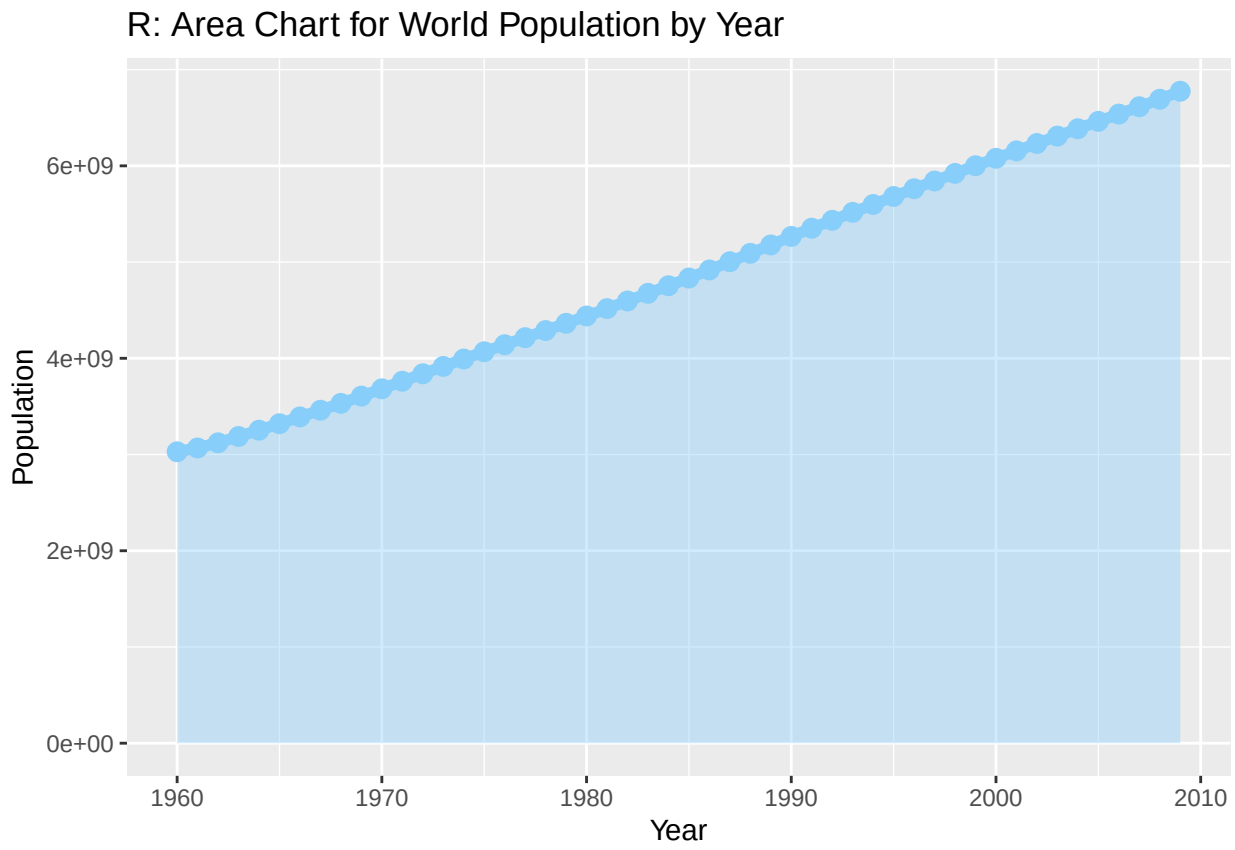
```
## # A tibble: 6 x 2
##    Year Population
##   <dbl>      <dbl>
## 1  1960 3028654024
## 2  1961 3068356747
## 3  1962 3121963107
## 4  1963 3187471383
## 5  1964 3253112403
## 6  1965 3320396924
```

```
# Total number of records present in the data set
nrow(pop_df)
```

```
## [1] 50
```

```
## Create Area Chart

ggplot(pop_df, aes(x=Year, y=Population)) +
  geom_area( fill="#87CEFA", alpha=0.4) +
  geom_line(color="#87CEFA", size=2) +
  geom_point(size=3, color="#87CEFA") +
  ggtitle("R: Area Chart for World Population by Year")
```




```
unemp_df <- read_csv("E:/Personal/Bellevue University/Course/github/dsc640/Week 3&4/unemployement-rate-
```

```
## Rows: 746 Columns: 4

## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr (2): Series id, Period
## dbl (2): Year, Value

##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
head(unemp_df)
```

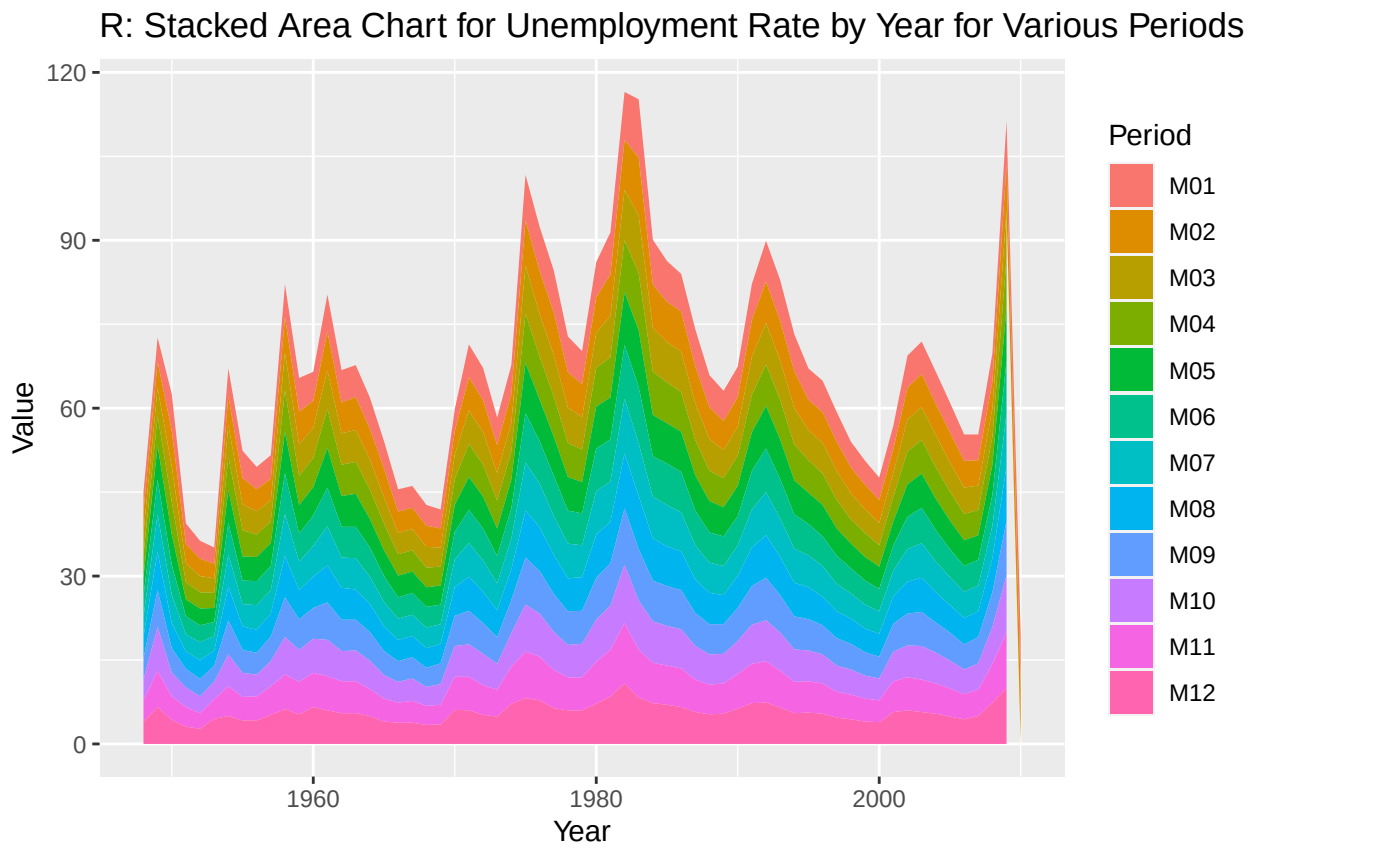
```
## # A tibble: 6 x 4
##   `Series id`  Year Period Value
##   <chr>       <dbl> <chr>  <dbl>
## 1 LNS14000000  1948 M01      3.4
## 2 LNS14000000  1948 M02      3.8
## 3 LNS14000000  1948 M03      4
## 4 LNS14000000  1948 M04      3.9
## 5 LNS14000000  1948 M05      3.5
## 6 LNS14000000  1948 M06      3.6
```

```
# Total number of records present in the data set
nrow(unemp_df)
```

```
## [1] 746
```

```
## Create Stacked Area Chart

ggplot(unemp_df, aes(x=Year, y=Value, fill=Period)) +
    geom_area() + ggtitle("R: Stacked Area Chart for Unemployment Rate by Year for Various Periods")
```



```
pop_df <- read_excel("E:/Personal/Bellevue University/Course/github/dsc640/Week 3&4/world-population.xls
head(pop_df)
```

```
## # A tibble: 6 x 2
##    Year Population
##   <dbl>      <dbl>
## 1  1960 3028654024
## 2  1961 3068356747
## 3  1962 3121963107
## 4  1963 3187471383
## 5  1964 3253112403
## 6  1965 3320396924
```

```
# Total number of records present in the data set
nrow(pop_df)
```

```
## [1] 50
```

```
## Create Step Chart

ggplot(pop_df, aes(x=Year, y=Population)) + geom_step() + ggtitle("R: Step Chart for World Population by
```