Smoking Cessation Report

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Setting up my environment

Setting up necessary R Packages

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.4     v readr     2.1.5
## v forcats   1.0.0     v stringr   1.5.1
## v ggplot2   3.5.1     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.1
## v purrr     1.0.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(ggplot2)
```

Introduction and import

This report shows the data analysis of my entire smoking cessation journey of 9 years.

```
#import data
R_data<- read_csv("C:/Users/HP/OneDrive/Desktop/Smoking_cessation.csv", col_types = cols(
  `Daily Cigarette Count` = col_double(),
  `Quitting Attempt` = col_character(),
  `Success/Relapse` = col_character(),
  Triggers = col_character(),
  `Motivation Level` = col_double(),
  `Health Indicators` = col_character(),
  `Emotional State` = col_double(),
  Notes = col_character()
))
new_data <- na.omit(R_data)
str(R_data)
```

```
## spc_tbl_ [15 x 9] (S3: spec_tbl_df/tbl_df/tbl/data.frame)
##  $ Date                 : num [1:15] 2015 2016 2017 2018 2019 ...
##  $ Daily Cigarette Count: num [1:15] 5 6 8 4 10 12 12 5 0 0 ...
```

```
##  $ Quitting Attempt     : chr [1:15] "No" "No" "Yes" "Yes" ...
##  $ Success/Relapse      : chr [1:15] "-" "-" "Relapse" "Relapse" ...
##  $ Triggers             : chr [1:15] "Stress, Social" "Stress, Social" "Stress" "Social" ...
##  $ Motivation Level     : num [1:15] 3 4 6 5 7 8 7 10 10 10 ...
##  $ Health Indicators    : chr [1:15] "8" "8" "8" "7" ...
##  $ Emotional State      : num [1:15] 5 5 4 4 4 3 3 6 8 9 ...
##  $ Notes                : chr [1:15] "New Year's Resolution" "Reduced slightly" "First serious attem
##  - attr(*, "spec")=
##   .. cols(
##   ..   Date = col_double(),
##   ..   `Daily Cigarette Count` = col_double(),
##   ..   `Quitting Attempt` = col_character(),
##   ..   `Success/Relapse` = col_character(),
##   ..   Triggers = col_character(),
##   ..   `Motivation Level` = col_double(),
##   ..   `Health Indicators` = col_character(),
##   ..   `Emotional State` = col_double(),
##   ..   Notes = col_character()
##   .. )
##  - attr(*, "problems")=<externalptr>
```

```
na.omit(R_data)
```

```
## # A tibble: 10 x 9
##     Date `Daily Cigarette Count` `Quitting Attempt` `Success/Relapse` Triggers
##    <dbl>                   <dbl> <chr>              <chr>              <chr>
##  1  2015                       5 No                 -                  Stress, S~
##  2  2016                       6 No                 -                  Stress, S~
##  3  2017                       8 Yes                Relapse            Stress
##  4  2018                       4 Yes                Relapse            Social
##  5  2019                      10 No                 -                  Stress, S~
##  6  2020                      12 Yes                Relapse            Stress
##  7  2021                      12 Yes                Relapse            Stress, S~
##  8  2022                       5 No                 -                  Stress, S~
##  9  2023                       0 Yes                Success            -
## 10  2024                       0 No                 Success            -
## # i 4 more variables: `Motivation Level` <dbl>, `Health Indicators` <chr>,
## #   `Emotional State` <dbl>, Notes <chr>
```

```
print(new_data)
```

```
## # A tibble: 10 x 9
##     Date `Daily Cigarette Count` `Quitting Attempt` `Success/Relapse` Triggers
##    <dbl>                   <dbl> <chr>              <chr>              <chr>
##  1  2015                       5 No                 -                  Stress, S~
##  2  2016                       6 No                 -                  Stress, S~
##  3  2017                       8 Yes                Relapse            Stress
##  4  2018                       4 Yes                Relapse            Social
##  5  2019                      10 No                 -                  Stress, S~
##  6  2020                      12 Yes                Relapse            Stress
##  7  2021                      12 Yes                Relapse            Stress, S~
##  8  2022                       5 No                 -                  Stress, S~
##  9  2023                       0 Yes                Success            -
```

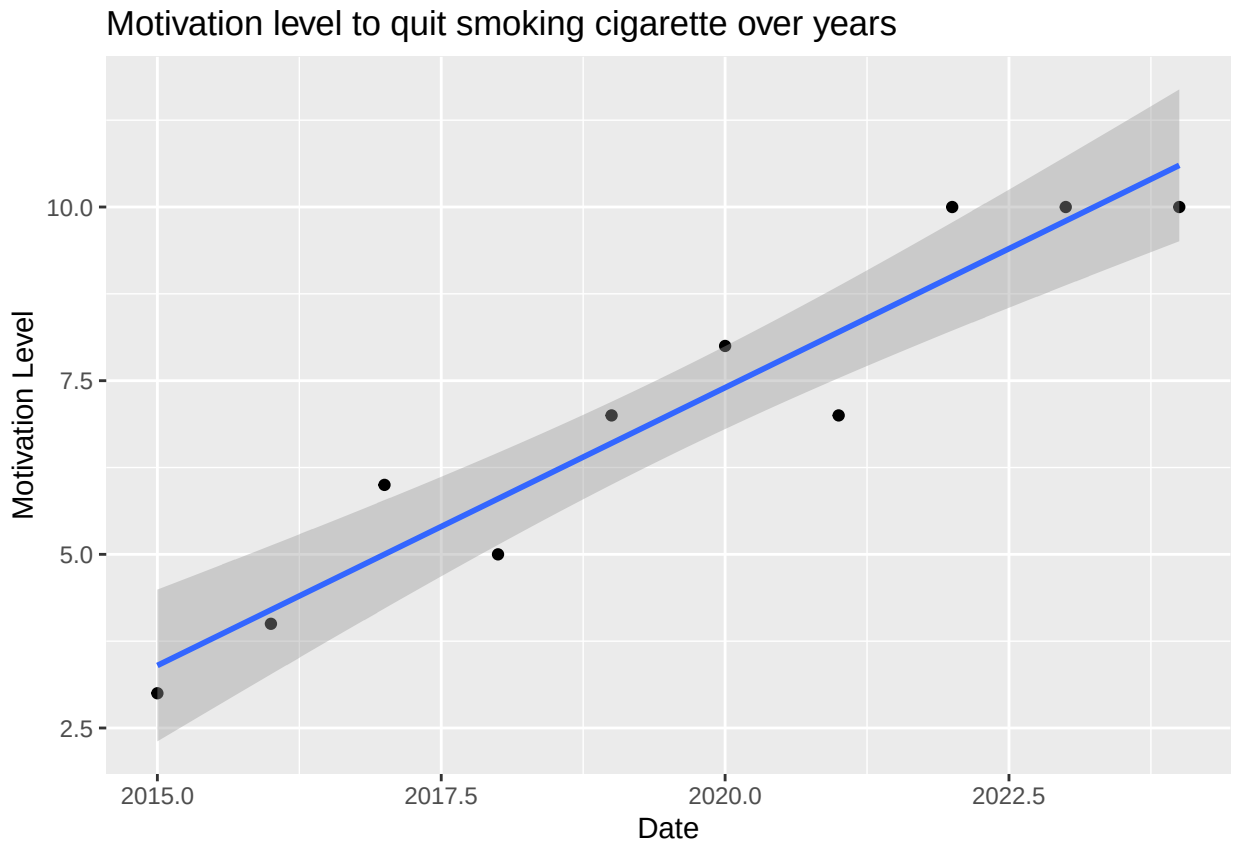
```
## 10  2024                        0 No                  Success           -
## # i 4 more variables: 'Motivation Level' <dbl>, 'Health Indicators' <chr>,
## #   'Emotional State' <dbl>, Notes <chr>
```

Data Analysis

Here I have done some data analysis and their visualizations.

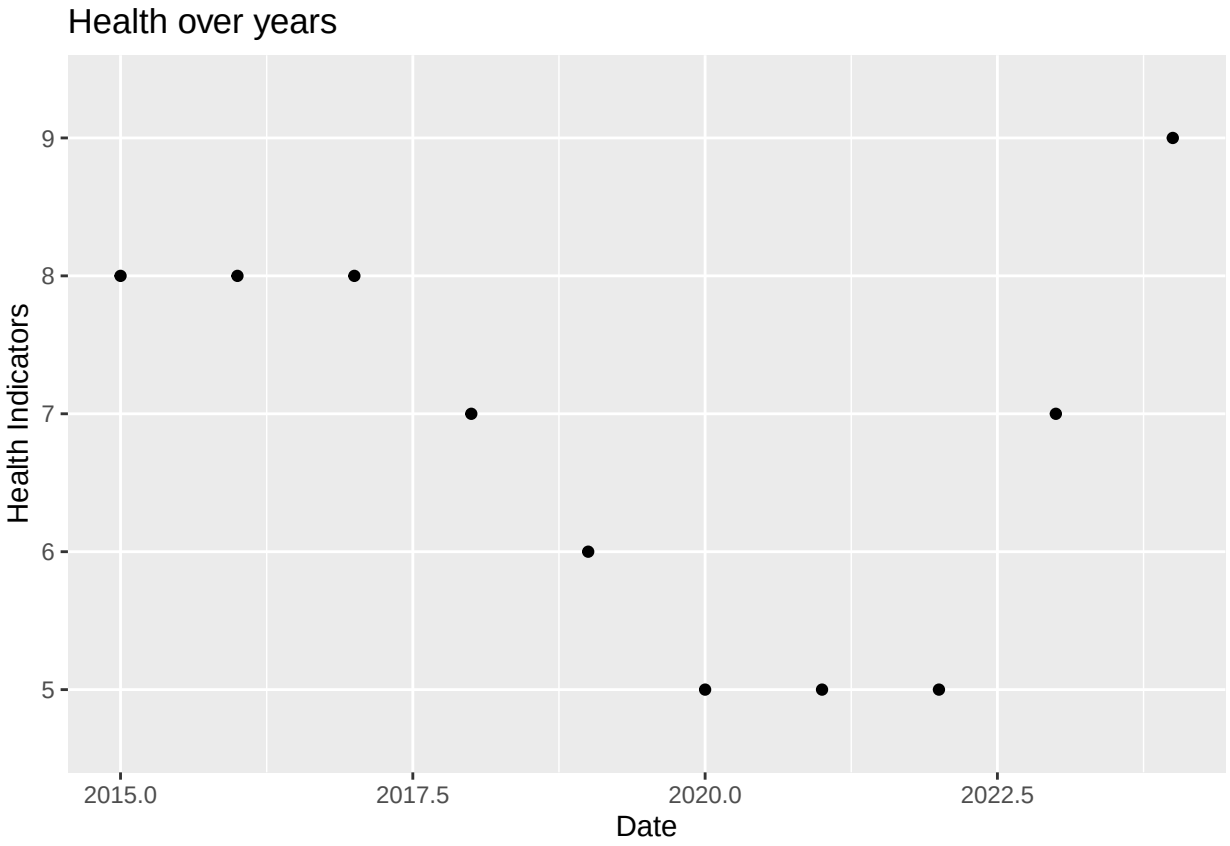
Analysis of motivation level to quit smoking over years

```
ggplot(new_data, aes(x=Date, y=`Motivation Level`)) +
  geom_point() +
  geom_smooth(method = "lm") +
  labs(
    title = "Motivation level to quit smoking cigarette over years",
    x = "Date",
    y = "Motivation Level"
  ) -> plot
suppressMessages(print(plot))
```



Analysis of health indicator

```
ggplot(new_data, aes(x=Date, y=`Health Indicators`)) +
  geom_point() +
  labs(
    title = "Health over years",
    x = "Date",
    y = "Health Indicators"
  )
```

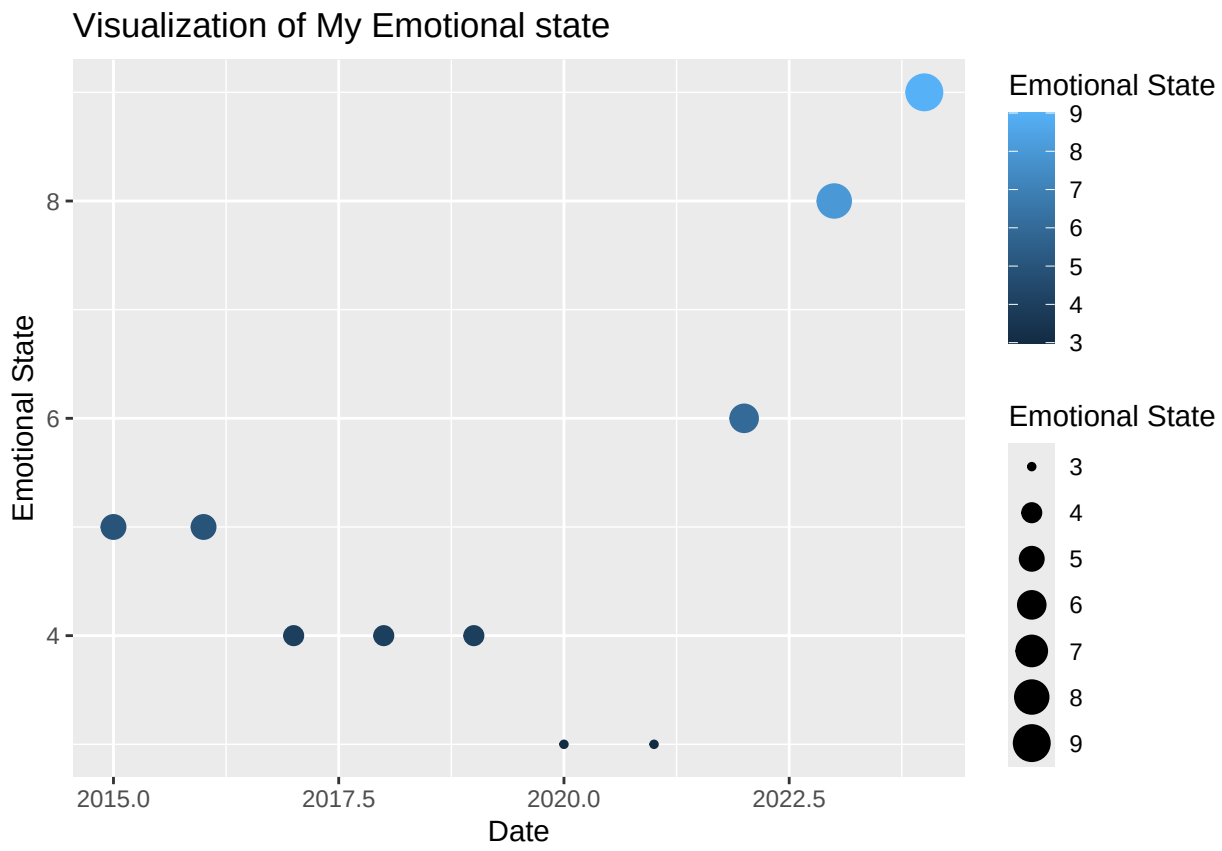


Data Visualization

Here I have done some visualizations of collected and cleaned data.

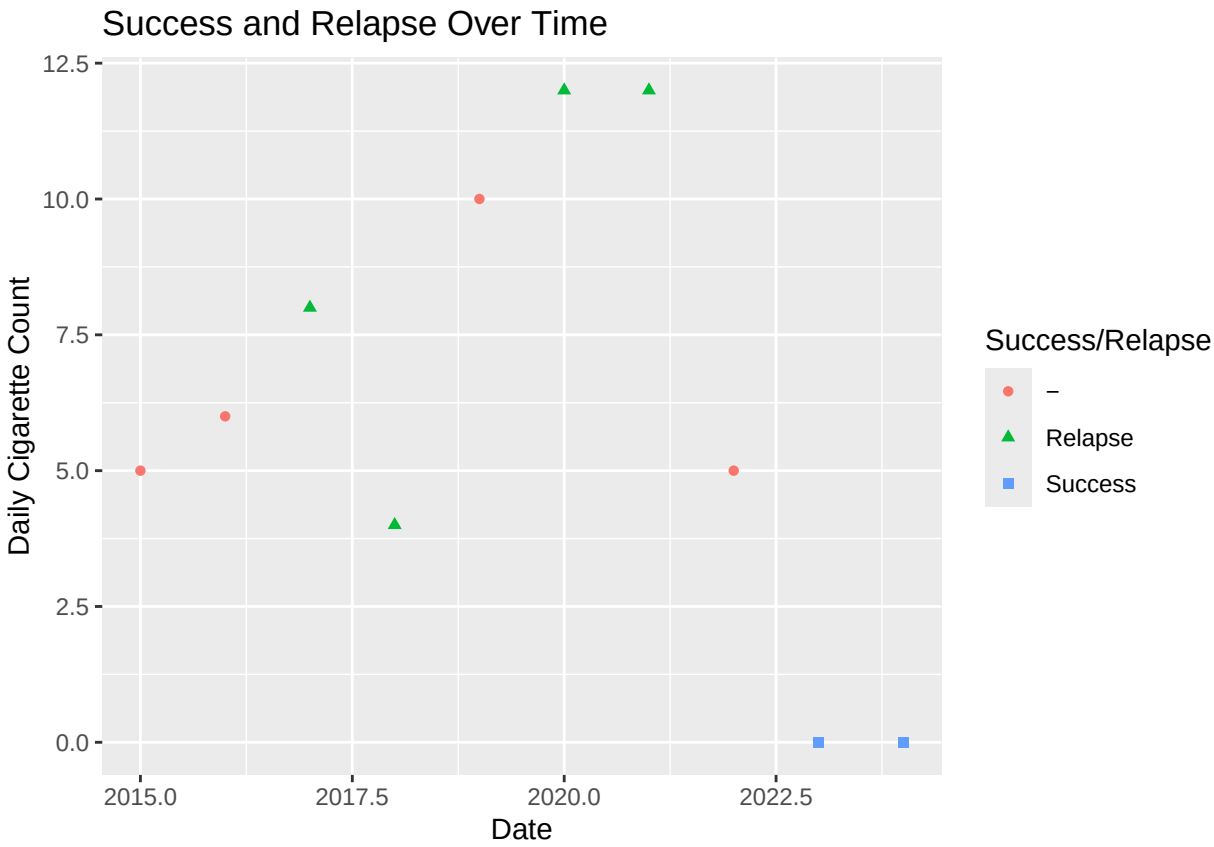
Visualization of Emotional State over tine

```
ggplot(new_data, aes(x=Date, y=`Emotional State`, size=`Emotional State`, color=`Emotional State`)) +
  geom_point() +
  labs(
    title = "Visualization of My Emotional state",
    x = "Date",
    y = "Emotional State"
  )
```



Visualization of Cigarette Count caused by success, replase and no attempt.

```
ggplot(new_data, aes(x=Date, y=`Daily Cigarette Count`, shape=`Success/Relapse`, color=`Success/Relapse`
  geom_point() +
  labs(
    title = "Success and Relapse Over Time",
    x = "Date",
    y = "Daily Cigarette Count"
  )
```


Success and Relapse Over Time
Daily Cigarette Count
12.5
10.0
7.5
5.0
2.5
0.0
2015.0
2017.5
2020.0
2022.5
Date
Success/Relapse
–
Relapse
Success