# ChiSquare Survey Analysis Output
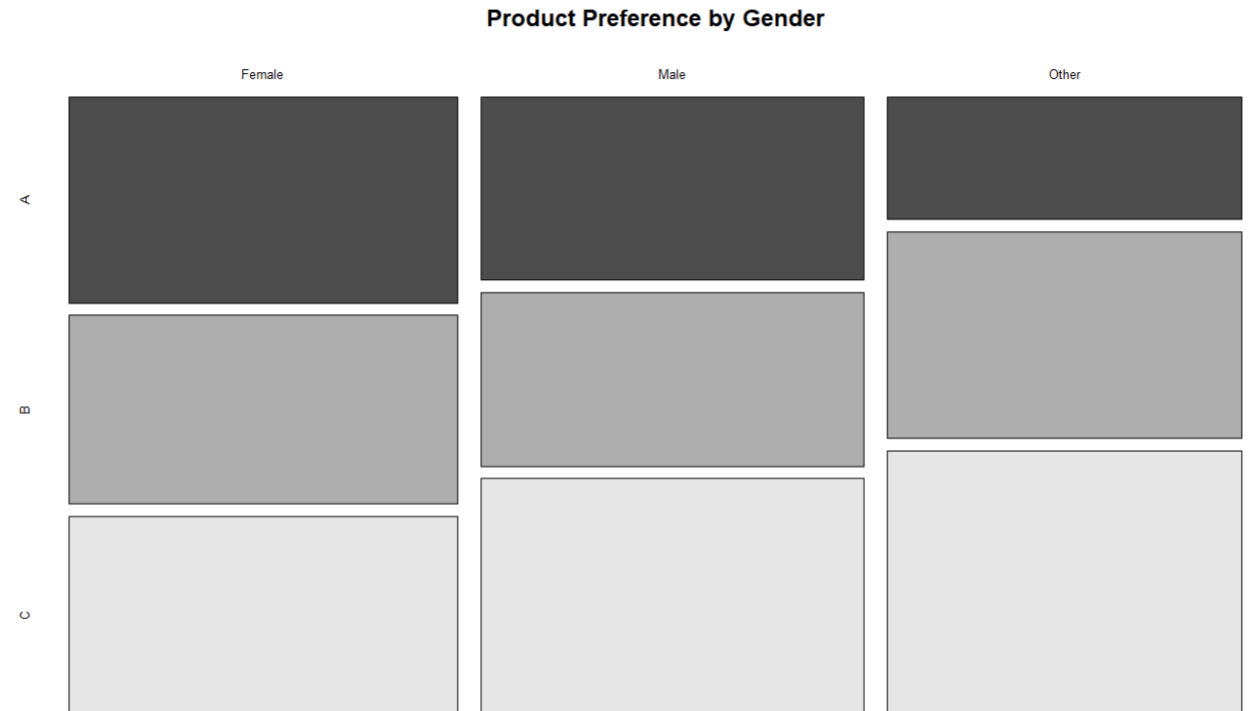
```
        A  B  C
Female 24 22 23
Male   21 20 27
Other  13 22 28
```

```
        Pearson's Chi-squared test

data:  table_data
X-squared = 3.765, df = 4, p-value = 0.4387
```

```
           A     B     C
Female 20.01 22.08 26.91
Male   19.72 21.76 26.52
Other  18.27 20.16 24.57
```



**Product Preference by Gender**

# TimeSeries COVID Analysis Output



```
      Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
2020  543 502 515 493 516 481 454 487 492 512 502 511
2021  488 506 508 485 512 549 483 501 479 492 485 528
2022  501 514 504 473 491 518 535 503 560 482 511 485
```

```
      Augmented Dickey-Fuller Test

data:  ts_data
Dickey-Fuller = -3.8761, Lag order = 3, p-value = 0.02605
alternative hypothesis: stationary
```
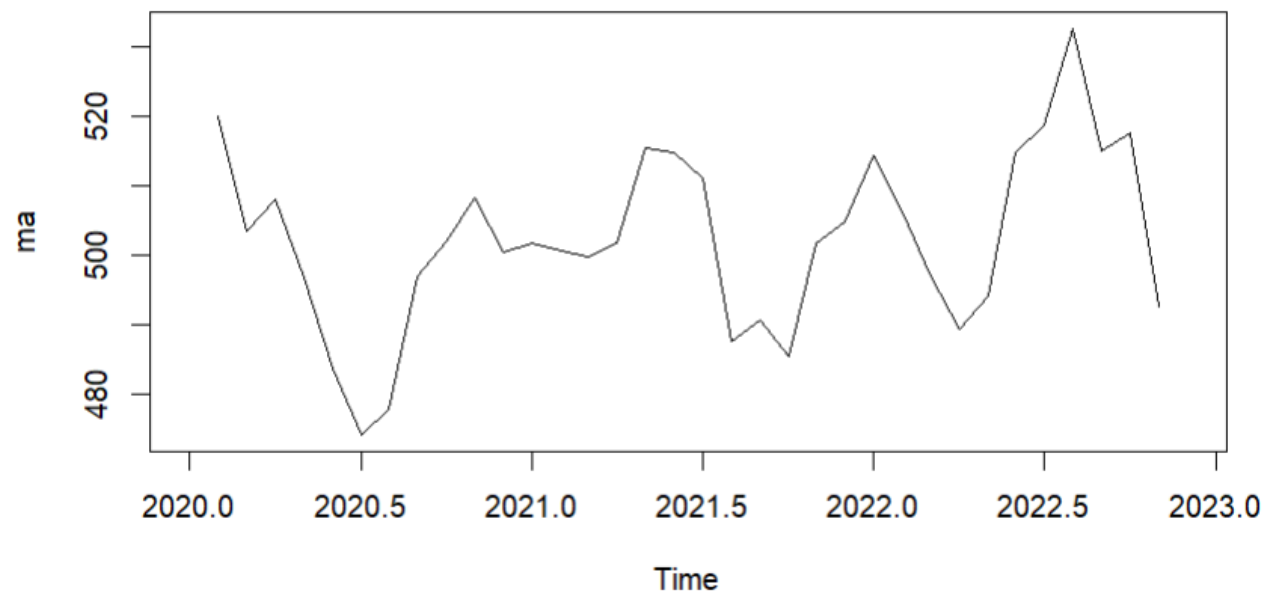
Monthly COVID-19 Cases



Series ts_data



Decomposition of additive time series
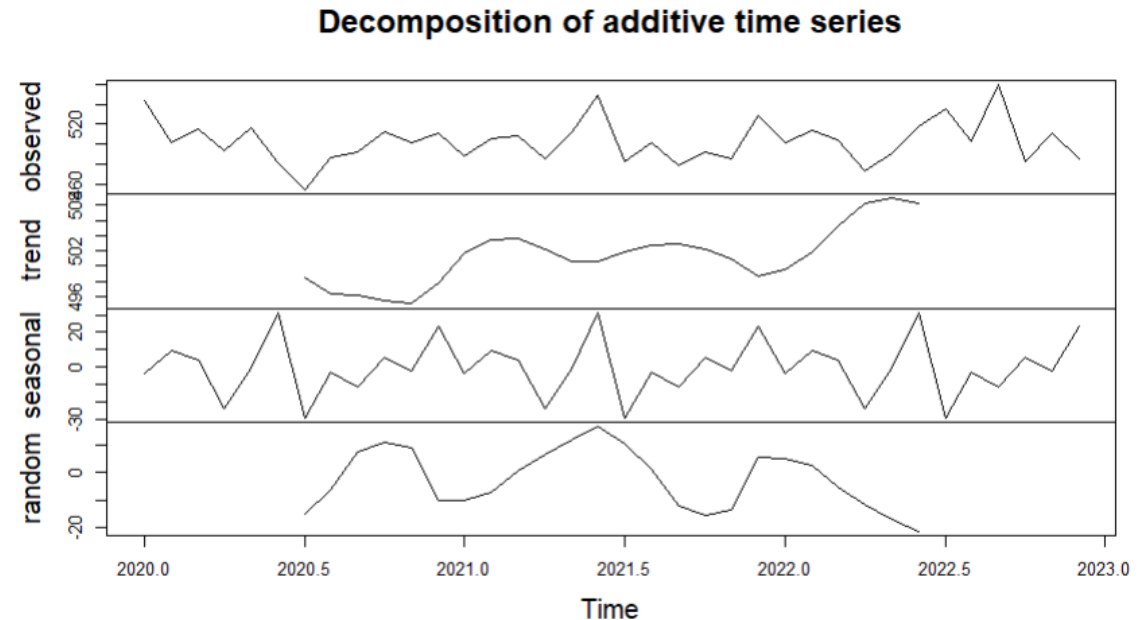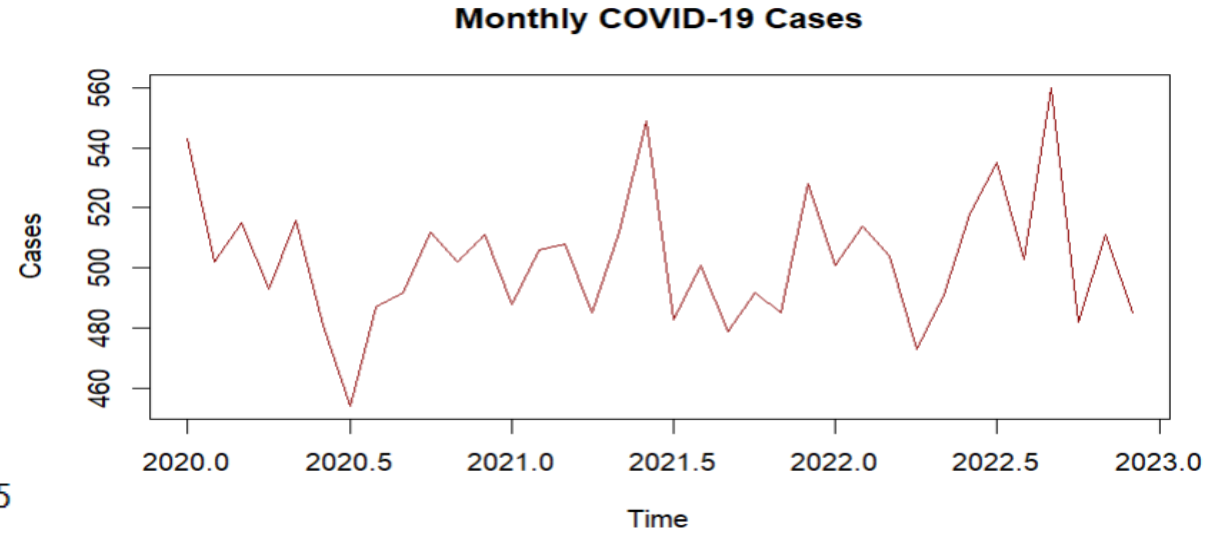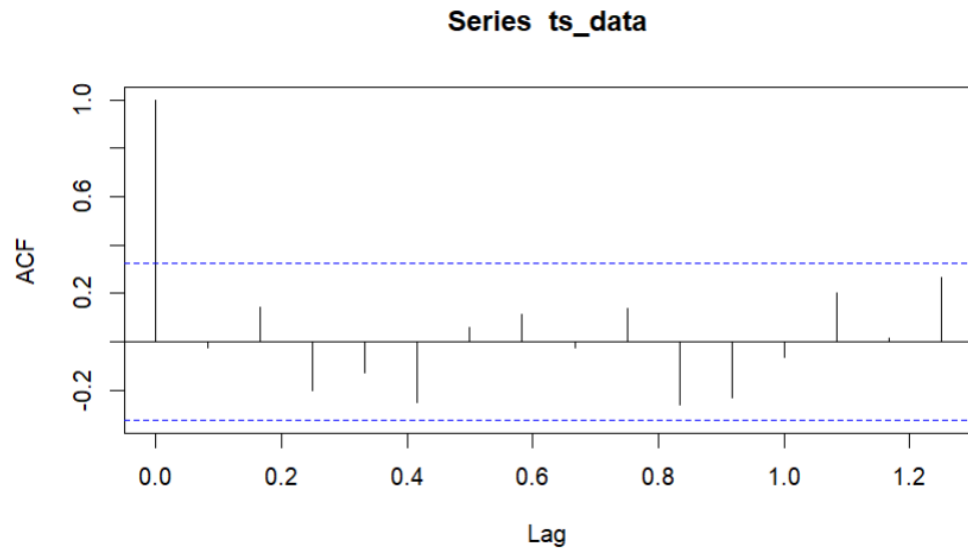
**Series ts_data**
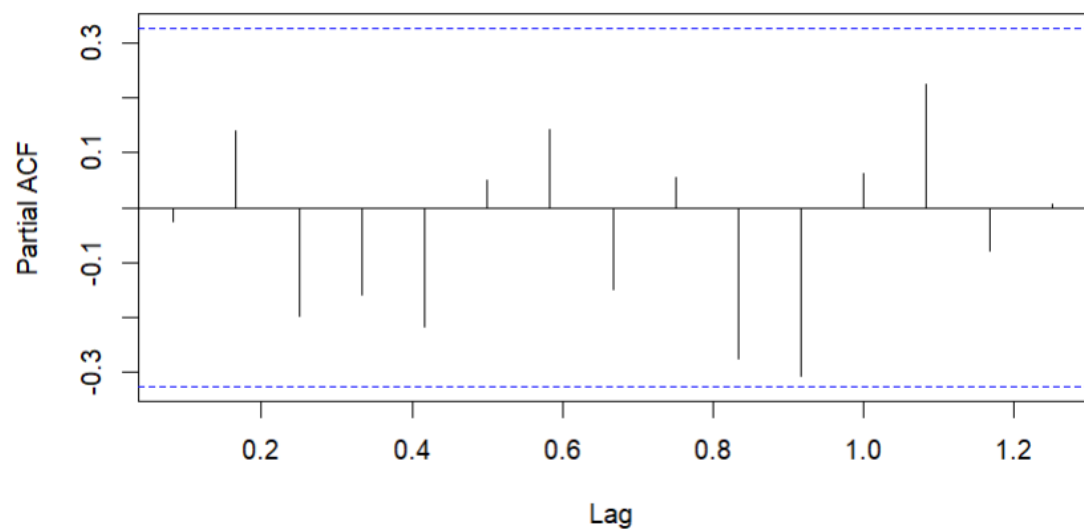
**3-Month Moving Average**

# EDA Retail Sales Output

```
        Date                 Region                    Sales
 Length:100            Length:100            Min.    :2411
 Class :character      Class :character      1st Qu.:3985
 Mode  :character      Mode  :character      Median :5081
                                             Mean    :5093
                                             3rd Qu.:6068
                                             Max.    :7926
```
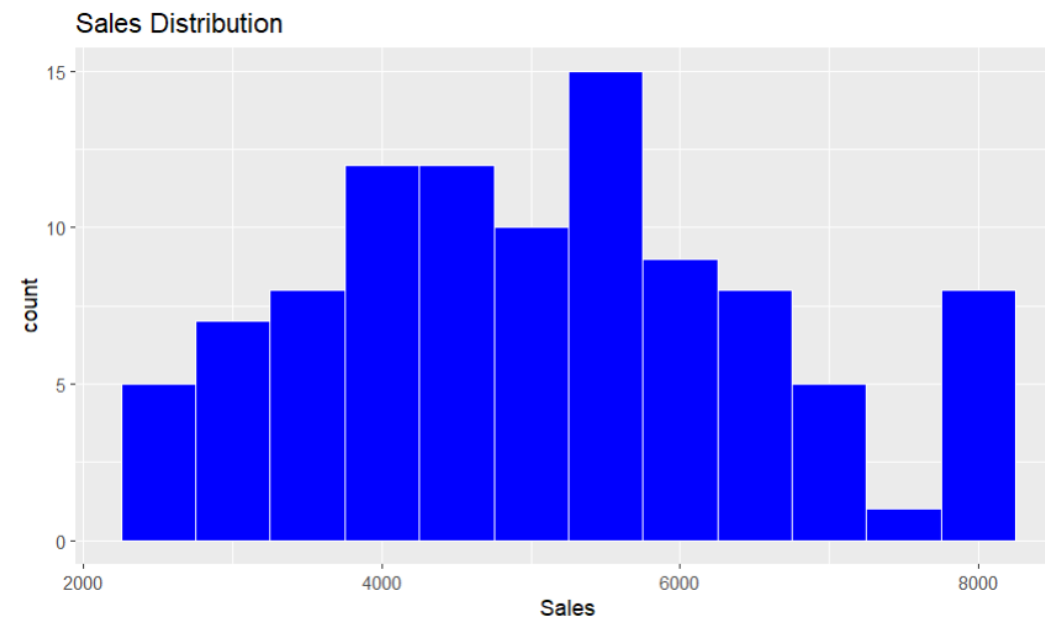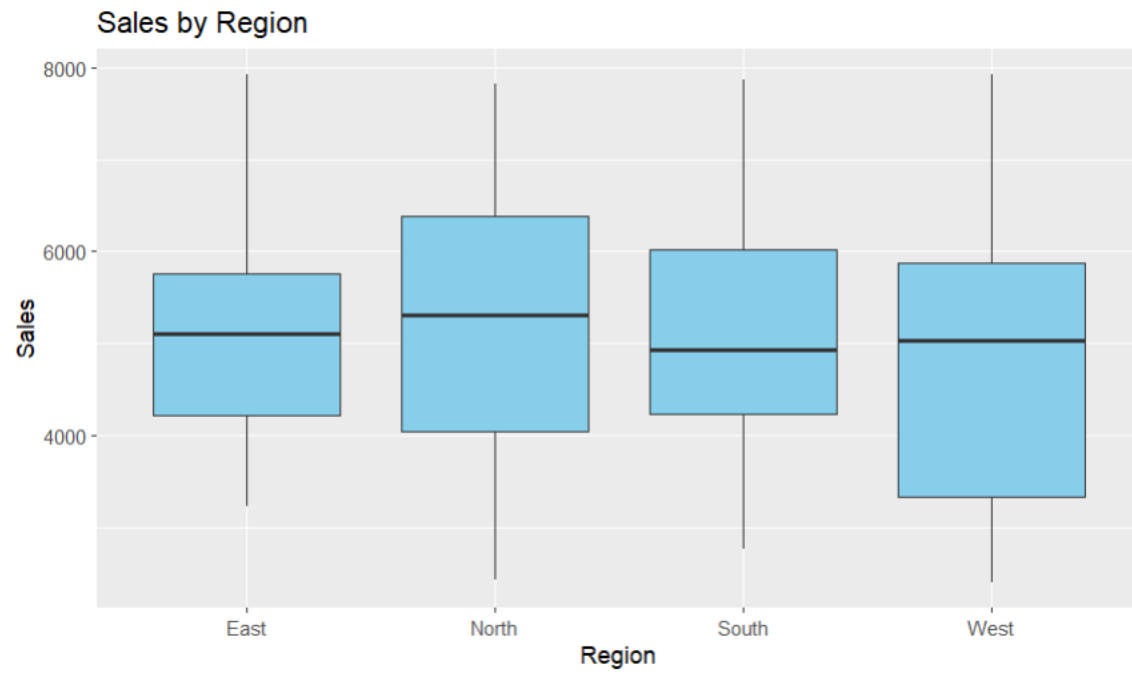
```
'data.frame':    100 obs. of  3 variables:
 $ Date  : chr   "2023-01-01" "2023-01-08" "2023-01-15" "2023-01-22" ...
 $ Region: chr   "North" "West" "South" "North" ...
 $ Sales : num   2441 7926 4236 4343 3121 ...
```

```
> mean(retail_data$Sales)
[1] 5093.276
> median(retail_data$Sales)
[1] 5081.085
> sd(retail_data$Sales)
[1] 1467.431
```



Sales Distribution

## Sales by Region



```
> skewness(retail_data$Sales)
[1] 0.1846604
> kurtosis(retail_data$Sales)
[1] -0.7814543
```