CS598 - Project 1

Xiaoming Ji

Computer System

Hardware

- Dell Precision Tower 5810
- $\bullet~$ CPU: Intel Xeon E5-1607 @ 3.10 GHz
- Memory: 32GB

Software

```
• OS: Windows 10 Professional 64bit
  • R: 3.5.1
  • R Packages:
      - forecast 8.4
## Loading required package: forecast
## Loading required package: tidyverse
## -- Attaching packages ----- tidyverse 1.2.1 --
## v ggplot2 3.1.0
                    v purrr
                              0.2.5
## v tibble 1.4.2 v dplyr
                              0.7.7
## v tidyr
          0.8.2
                    v stringr 1.3.1
## v readr
           1.1.1
                   v forcats 0.3.0
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()
                   masks stats::lag()
## Loading required package: kableExtra
## Loading required package: knitr
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    Store = col_integer(),
##
    Dept = col_integer(),
    Date = col_date(format = ""),
##
## Weekly_Sales = col_double(),
    IsHoliday = col_logical()
##
## )
## # A tibble: 1 x 3
## model_one model_two model_three
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## Date = col_date(format = ""),
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  Weekly_Sales = col_double(),
   IsHoliday = col_logical()
## )
## # A tibble: 1 x 3
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  Date = col_date(format = ""),
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  Weekly_Sales = col_double(),
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  IsHoliday = col_logical()
## )
## # A tibble: 1 x 3
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  Weekly_Sales = col_double(),
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  IsHoliday = col_logical()
## )
## # A tibble: 1 x 3
  model_one model_two model_three
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## Date = col_date(format = ""),
## Weekly_Sales = col_double(),
## IsHoliday = col_logical()
## )
## # A tibble: 1 x 3
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  IsHoliday = col_logical()
## )
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  Date = col_date(format = ""),
  Weekly_Sales = col_double(),
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  IsHoliday = col_logical()
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  Date = col_date(format = ""),
  Weekly_Sales = col_double(),
  IsHoliday = col_logical()
##
## # A tibble: 1 x 3
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   Date = col_date(format = ""),
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   Weekly_Sales = col_double(),
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##
   IsHoliday = col_logical()
## )
## # A tibble: 1 x 3
## model_one model_two model_three
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89%
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                                     90%
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 |-----| 100%
## Parsed with column specification:
## cols(
##
  Store = col_integer(),
##
  Dept = col_integer(),
  Date = col_date(format = ""),
##
##
  Weekly_Sales = col_double(),
  IsHoliday = col_logical()
##
## )
## # A tibble: 1 x 3
  model_one model_two model_three
##
    <dbl>
          <dbl>
                 <dbl>
## 1
    2372.
          1681.
                1226.
## elapsed
## 3050.012
##
  model_one model_two model_three
##
   2812.677
         1888.006
                1596.564
```

Fold	Naive	SNaive	Dynamic
1	2078.726	2262.422	2042.401
2	2589.338	1787.081	1440.083
3	2253.936	1779.052	1434.716
4	2823.098	1716.117	1596.988
5	5156.012	2400.395	2327.638
6	4218.348	1696.900	1674.185
7	2269.904	2086.967	1612.517
8	2143.839	1750.283	1336.266
9	2221.145	1719.887	1274.407
10	2372.425	1680.956	1226.439

Computation time: 3050.012 seconds