

Introduction

The aim of this series of blog is to predict monthly admissions to Singapore public acute adult hospitals. The

```
library(tidyverse)
library(timetk)
library(fpp3)

# cleaned up dataset downloaded from my github. Clean up of OG dataset done in
raw<- read_csv("https://raw.githubusercontent.com/notast/hierarchical-forecastir

# dataset w national total; recalculate total hospital admissions
df<-raw %>% group_by(Date) %>% summarise(Admission=sum(Admission, na.rm = T)) %>
```

EDA for trend, seasonality and anomalies were explored in the [last post](#). This post will complete EDA with la

1. Lags

[Lags can be used to screen for seasonality](#). The values of lags can be used to calculate auto-correlation (AC

1. Short lags (lag length < forecast horizon)

When the lag length (e.g. 1 month) is less than the forecast horizon (e.g. 3 months), missing values are gene

```
df %>% group_by(Hospital) %>%
  future_frame(.date_var= Date, .length_out = "3 months", .bind_data = T) %>% ur
  mutate(Lag1month= lag_vec(Admission, lag=1)) %>%
  tail()
## # A tibble: 6 x 5
##   Hospital Date      Admission Cluster Lag1month
```