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
```