*Session12: Assignment 2*

1. Introduction

This assignment will help you to consolidate the concepts learnt in the session.

1. Problem Statement

In this assignment students have to make ARIMA model over shampoo sales data and check the MSE between predicted and actual value. Student can download data in .csv format from the following link:

https://datamarket.com/data/set/22r0/sales-of-shampoo-over-a-three-year-period#!ds

=22r0&display=line

Hint:

Following is the command import packages and data

from pandas import read\_csv

from pandas import datetime

from matplotlib import pyplot

from statsmodels.tsa.arima\_model import ARIMA

from sklearn.metrics import mean\_squared\_error

def parser(x):

return datetime.strptime('190'+x, '%Y-%m')

series = read\_csv('shampoo-sales.csv', header=0, parse\_dates=[0], index\_col=0,

squeeze=True, date\_parser=parser)

**Note: The solution shared through Github should contain the source code used**

**and the screenshot of the output.**

***3. Solution:***

**Please find the solution in the attached HTML file, I am unable to upload it directly to Github link.**

**Kindly enable the word file before clicking on the object so that it opens in a browser.**

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