

Names:	Mr.Sagar Narode Ms.Prachi Kulkarni Ms.Priya Shroff
--------	--

Prob Statement:	Predict the Yearly sunspot number based on the dataset that contains yearly sunspot number from 1700 to 1988.
-----------------	---

Data:	https://vincentarelbundock.github.io/Rdatasets/datasets.html csv file ,Data include 2 columns
-------	---

Tools:	Python	Library: pandas,numpy,matplotlib,warnings,statsmodels.api,sklearn.metrics,datetime,statsmodels.tsa.seasonal,statsmodels.tsa.arima_model,pmdarima
--------	--------	--

Model Comparison/Summary:			
Model	AIC	MAE	
SimpleExpSmoothing	1542.542		
Holt ExponentialSmoothing	1534.058		
Holt WinterSmoothing	1526.616		
Auto Arima	2077.768	39.31	
Arima model	2087.139	42.29	
Sarimax	1227.161	20.01	

Best Model:	Sarimax
-------------	---------