

Technical Report

Web URL

<https://vishwas.shinyapps.io/MedianHousePrice/>

Github URL

https://github.com/Vishwas336/TimeSeriesAnalysis_Spring2022

Technical description

Tools used

The webapp was written in Rstudio using Shiny and deployed on Shinyapps.io. We used the 2 file format for our Shiny webapp, ui.R which accepts the input from the user and displays the output. Server.R contains our R script for importing the data and other functions. The code was written in R.

Data

The dataset was collected from Zillow <https://www.zillow.com/research/data/> where the data is updated monthly, the data consists of the median sale price of house in all US cities. Monthly data is available from 2008 April to 2021 December (165 records per city), For 95 US cities.

User functionalities

The user can select the city for which they want to see the data for, we provide the plot of the timeseries, decomposition of the time series, acf plot and double differenced acf, pacf plots so they can decide the model parameters for the Seasonal ARIMA model. The users can also choose the number of months for prediction to get an idea of what the price might be. We also provide some simple forecasting methods along with the auto seasonal ARIMA forecasting for the users.

Teamwork

This project was done by me as I am the only one in the team.