```
/*----------------------------IMPORT DATA-------------------------*/

FILENAME REFFILE '/folders/myfolders/Walmart_Store_sales.csv';

PROC IMPORT DATAFILE=REFFILE
        DBMS=CSV
        OUT=WORK.Walmart_Store_sales;
        GETNAMES=YES;
RUN;

PROC CONTENTS DATA=WORK.Walmart_Store_sales;
RUN;

/*----------------------Basic statistic Analaysis------------------*/
Proc Means Data=Walmart_Store_sales Mean STD Max Q3;
BY Store;
RUN;


/*-----------------------FOR STORE WITH MAX SALES--------------------*/
Proc Means Data=Walmart_Store_sales Max ;
        Var weekly_sales;
        class store;
RUN;

/*-----------------------For store with MAX STD----------------------*/
Proc Means Data=Walmart_Store_sales STDDEV ;
        Var weekly_sales;
        class store;
RUN;

/*-----------------------For Coefficient of mean to STD--------------*/

ODS Graphics on;
Proc corr Data=Walmart_Store_sales
                Plots=Matrix(Histogram) ;
                var weekly_sales store;
                run;
ODS GRaphics off;


/*------------Store/s has good quarterly growth rate in Q3'2012--------*/

Proc Means Data=Walmart_Store_sales Q3 ;
        Var weekly_sales;
        class store;
RUN;

/*-------------holidays which have higher sales than the mean sales
in non-holiday season for all stores together----------------------*/

Proc Means Data=Walmart_Store_sales;
                BY Store;
        Var weekly_sales;
        class Holiday_Flag;
RUN;



Proc gplot Data=Walmart_Store_sales;
Plot weekly_sales*holiday_flag;
```

```
run;

Proc glm Data=Walmart_Store_sales;
Model weekly_sales=holiday_flag;
run;
/*--------------------------Statistical Model-----------------------*/


/*--------------Linear Regression MODEL------------*/
/*Ho sales affect the unemployment,fule price and CPI*/
/*H1 Sale doesnt affect the above mentioned*/
 /* Alpha= 0.05*/
/*IF pvalue >0.05 Reject H0*/


Proc Reg Data=Walmart_Store_sales;
               Model weekly_sales=unemployment fuel_price cpi;
               Run;


/*----------------------ARIMA MODEL---------------------------*/

proc arima data = Walmart_Store_sales;
identify var = weekly_sales(1) nlag = 24 ;
estimate p = 1  q = 1;
run;
forecast lead=12 interval=month id=Date out=Walmart_Store_sales;
quit;


/*-------------------------------Differencing-----------------------*/
proc arima data=Walmart_Store_sales ;
   identify var=weekly_sales(1) nlag=24;
run;

/*----------------------Identification stage----------------------*/

proc sgplot data=Walmart_Store_sales;
scatter y=weekly_sales x=date;
run;


/*-------------------------------For next 6 months----------------*/
proc arima data=Walmart_Store_sales;
identify var=Fuel_Price(1);
estimate p=2;
identify var=weekly_sales(1) crosscorr=Fuel_Price(1);
estimate p=1 q=1 input=Fuel_Price;
forecast lead=6 interval=month id=date out=Walmart_Store_sales;
run;


/*------------------------Autograssive Parameter--------------------*/


/*-----------------White Noise Test-------------*/

/*The Tests stastic fail to reject the autocorrelation hypothesis
pvalue<0.0001 for the first six lags*/
/*Hence AR(1) model is fully adequate for this series*/
```