```
/*creating library for reference*/
libname STAT1 base "/home/u62159561/sasuser.v94/Naureen_Safoora/EPG1V2/data";

/*specifying excel file location*/
filename reffile '/home/u62159561/my_shared_file_links/u60594276/BSTAT 5325-002 Fall 2022/Course Project/Data/ames.xlsx';

/*used when importing excel files to get required format in SAS*/
options validvarname=v7;

/* gives graphs along with tables*/
ods graphics on;

/*loading the data from excel*/
proc import datafile=reffile dbms=xlsx out=STAT1.ames;
    getnames=yes;
run;

/*displaying contents of data*/
proc contents data=STAT1.ames;
run;


/* dropping ID columns as they are not of any statistical use*/
data STAT1.ames_drop;
set STAT1.ames;
drop PID;
run;

/* descriptive statistics*/
proc means data=STAT1.ames_drop N mean mode median std q1 p25 p50 q3 min max;
run;

proc univariate data=STAT1.ames_drop;
run;

proc freq data=STAT1.ames_drop; /*categorical var*/
    table Pool_QC;
run;


/*MISSING VALUES HANDLING*/
title "Means Procedure to check for Missing Values";
proc means data=STAT1.ames_drop NMISS N;
run;

/* remove less missing*/
data STAT1.remove_missing;
    set STAT1.ames_drop;
    if Mas_Vnr_Area=. then delete;
    if BsmtFin_SF_1=. then delete;
    if BsmtFin_SF_2=. then delete;
    if Bsmt_Unf_SF=. then delete;
    if Total_Bsmt_SF=. then delete;
    if Bsmt_Full_Bath=. then delete;
    if Bsmt_Half_Bath=. then delete;
    if Garage_Cars=. then delete;
    if Garage_Area=. then delete;
    if Garage_Yr_Blt=. then delete;
run;

/*missing values*/
title "Means Procedure to check for Missing Values";
proc means data=STAT1.remove_missing NMISS N;  /* Lot_Frontage left */
run;

/* not much correlation, therefore MCAR*/
proc corr data=STAT1.remove_missing plots=matrix;
    with Lot_Frontage;
run;

/* checking Lot_Frontage dist*/
proc univariate data=STAT1.remove_missing;
    var Lot_Frontage;
    histogram Lot_Frontage / normal; /* we get a right skewed dist*/
run;

/* getting median to impute*/
proc means data=STAT1.remove_missing N median;
    var Lot_Frontage;
run;
```

```
/* imputing with median*/
data STAT1.impute_missing;
    set STAT1.remove_missing;
    if Lot_Frontage=. then
        Lot_Frontage=69;
run;

/*CATERGORICAL VALUES ENCODING TO GET BETTER CORRELATION - CUZ NEED PARSIMONY */
/*FOR THAT NEED ONLY CORRELATED VAR*/

/*** Analyze categorical variables ***/
title "Frequencies for Categorical Variables";
proc freq data=STAT1.impute_missing;
    tables MS_SubClass MS_Zoning Street Alley Lot_Shape Land_Contour Utilities
        Lot_Config Land_Slope Neighborhood Condition_1 Condition_2 Bldg_Type
        House_Style Roof_Style Roof_Matl Exterior_1st Exterior_2nd Mas_Vnr_Type
        Exter_Qual Exter_Cond Foundation Bsmt_Qual Bsmt_Cond Bsmt_Exposure
        BsmtFin_Type_1 BsmtFin_Type_2 Heating Heating_QC Central_Air Electrical
        Kitchen_Qual Functional Fireplace_Qu Garage_Type Garage_Finish Garage_Qual
        Garage_Cond Paved_Drive Pool_QC Fence Misc_Feature Sale_Type Sale_Condition /
        plots=(freqplot);
run;

/* dropping cat. columns as >50% NA or >90% to other ratio */
/* IMBALANCED DATA*/
data STAT1.cat_na_drop;
set STAT1.IMPUTE_MISSING;
drop Alley Street Utilities Land_Slope Condition_2 Roof_Matl Bsmt_Cond Heating Central_Air
 Electrical Functional Garage_Qual Garage_Cond Paved_Drive Pool_QC Fence Misc_Feature;
run;


/*  removing cat. rows with freq < 10 */
data STAT1.cat_less_rem;
    set STAT1.cat_na_drop;
    if MS_SubClass = 040 or MS_SubClass = 150 then delete;
    if MS_Zoning = 'A (agr)' or MS_Zoning = 'I (all)' then delete;
    if Neighborhood = 'Greens' or Neighborhood = 'GrnHill' or Neighborhood = 'Landmrk' then delete;
    if Condition_1 = 'RRNe' or Condition_1 = 'RRNn' then delete;
    if House_Style = '2.5Fin' then delete;
    if Roof_Style = 'Mansard' or Roof_Style = 'Shed' then delete;
    if Exterior_1st = 'BrkComm' or Exterior_1st = 'CBlock' or Exterior_1st = 'ImStucc' or Exterior_1st = 'Stone' then del
    if Exterior_2nd = 'AsphShn' or Exterior_2nd = 'CBlock' or Exterior_2nd = 'Other' or Exterior_2nd = 'Stone' then delet
    if Mas_Vnr_Type = 'CBlock' then delete;
    if Exter_Cond = 'Po' then delete;
    if Foundation = 'Wood' then delete;
    if Bsmt_Qual = 'Po' then delete;
    if Heating_QC= 'Po' then delete;
    if Kitchen_Qual = 'Po' then delete;
    if Sale_Type = 'Con' or Sale_Type = 'ConLI' or Sale_Type = 'ConLw' or Sale_Type = 'Oth' or Sale_Type = 'VWD' then del
    if Sale_Condition = 'AdjLand' then delete;
run;


/* check again for encoding ordinal var */
proc freq data = stat1.cat_less_rem;
       tables MS_SubClass MS_Zoning Lot_Shape Land_Contour Lot_Config Neighborhood
        Condition_1 Bldg_Type House_Style Roof_Style Exterior_1st Exterior_2nd
        Mas_Vnr_Type Exter_Qual Exter_Cond Foundation Bsmt_Qual Bsmt_Exposure
        BsmtFin_Type_1 BsmtFin_Type_2 Heating_QC Kitchen_Qual Fireplace_Qu
        Garage_Type Garage_Finish Sale_Type Sale_Condition/
        plots=(freqplot);
run;

/* encoding ordinal cat var */
title "Transform Ordinal Cat. Data for Regression";
data stat1.cat_ord_encode;
    set stat1.cat_less_rem;
    if Lot_Shape = "Reg" then LotShape_new = 4;
    else if Lot_Shape="IR1" then LotShape_new  = 3;
    else if Lot_Shape = "IR2" then LotShape_new = 2;
    else if Lot_Shape = "IR3" then LotShape_new = 1;
    else LotShape_new = 0;

    if Exter_Qual="Ex"      then ExterQual_new = 4;
    else if Exter_Qual="Gd"     then ExterQual_new = 3;
    else if Exter_Qual="TA"     then ExterQual_new = 2;
    else if Exter_Qual="Fa"     then ExterQual_new = 1;
    else ExterQual_new = 0;

    if Exter_Cond="Ex"      then ExterCond_new = 4;
    else if Exter_Cond="Gd"     then ExterCond_new = 3;
```

```
    else if Exter_Cond="TA"     then ExterCond_new = 2;
    else if Exter_Cond="Fa"     then ExterCond_new = 1;
    else ExterCond_new = 0;

    if Bsmt_Qual="Ex"       then BsmtQual_new = 4;
    else if Bsmt_Qual="Gd"  then BsmtQual_new = 3;
    else if Bsmt_Qual="TA"  then BsmtQual_new = 2;
    else if Bsmt_Qual="Fa"  then BsmtQual_new = 1;
    else if Bsmt_Qual="NA"  then BsmtQual_new = 0;

    if Bsmt_Exposure="Gd"   then BsmtExposure_new = 4;
    else if Bsmt_Exposure="Av"  then BsmtExposure_new = 3;
    else if Bsmt_Exposure="Mn"  then BsmtExposure_new = 2;
    else if Bsmt_Exposure="No"  then BsmtExposure_new = 1;
    else BsmtExposure_new = 0;

    if BsmtFin_Type_1="ALQ" then BsmtFinType1_new = 5;
    else if BsmtFin_Type_1="BLQ" then BsmtFinType1_new = 4;
    else if BsmtFin_Type_1="GLQ" then BsmtFinType1_new = 6;
    else if BsmtFin_Type_1="LwQ" then BsmtFinType1_new = 2;
    else if BsmtFin_Type_1="Rec" then BsmtFinType1_new = 3;
    else if BsmtFin_Type_1="Unf" then BsmtFinType1_new = 1;
    else BsmtFinType1_new = 0;

    if BsmtFin_Type_2="ALQ" then BsmtFinType2_new = 5;
    else if BsmtFin_Type_2="BLQ" then BsmtFinType2_new = 4;
    else if BsmtFin_Type_2="GLQ" then BsmtFinType2_new = 6;
    else if BsmtFin_Type_2="LwQ" then BsmtFinType2_new = 2;
    else if BsmtFin_Type_2="Rec" then BsmtFinType2_new = 3;
    else if BsmtFin_Type_2="Unf" then BsmtFinType2_new = 1;
    else BsmtFinType2_new = 0 ;

    if Heating_QC="Ex"      then HeatingQC_new = 4;
    else if Heating_QC="Gd"     then HeatingQC_new = 3;
    else if Heating_QC="TA"     then HeatingQC_new = 2;
    else if Heating_QC="Fa"     then HeatingQC_new = 1;
    else HeatingQC_new = 0;

    if Kitchen_Qual="Ex"        then KitchenQual_new = 4;
    else if Kitchen_Qual="Gd"   then KitchenQual_new = 3;
    else if Kitchen_Qual="TA"   then KitchenQual_new = 2;
    else if Kitchen_Qual="Fa"   then KitchenQual_new = 1;
    else KitchenQual_new = 0;

    if Fireplace_Qu="Ex"        then FireplaceQu_new = 5;
    else if Fireplace_Qu="Gd"   then FireplaceQu_new = 4;
    else if Fireplace_Qu="TA"   then FireplaceQu_new = 3;
    else if Fireplace_Qu="Fa"   then FireplaceQu_new = 2;
    else if Fireplace_Qu="Po"   then FireplaceQu_new = 1;
    else FireplaceQu_new = 0;

    if Garage_Finish="RFn" then GarageFinish_new = 2;
    else if Garage_Finish="Fin" then GarageFinish_new = 3;
    else if Garage_Finish="Unf" then GarageFinish_new = 1;
    else GarageFinish_new = 0;
run;

/* dropping old encoded cat. columns */
data STAT1.cat_ord_encode;
set STAT1.cat_ord_encode;
drop Lot_Shape Exter_Qual Exter_Cond Bsmt_Qual Bsmt_Exposure BsmtFin_Type_1 BsmtFin_Type_2
Heating_QC Kitchen_Qual Fireplace_Qu Garage_Finish;
run;


/*simpsons paradox*/
/* avg of all */
ods graphics / reset width=6.4in height=4.8in imagemap;
proc sgplot data=STAT1.cat_ord_encode;
    vbar Neighborhood / response=SalePrice stat=mean datalabel;
    yaxis grid;
run;
ods graphics / reset;


/* dist edwards noridge*/
ods graphics / reset width=6.4in height=4.8in imagemap;
proc sort data=STAT1.cat_ord_encode out=_BarChartTaskData;
    by House_Style;
run;
proc sgplot data=_BarChartTaskData;
    by House_Style;
```

```
    vbar Neighborhood / response=SalePrice fillattrs=(color=CX6818b3) datalabel
        stat=mean;
    yaxis grid;
run;
ods graphics / reset;
proc datasets library=WORK noprint;
    delete _BarChartTaskData;
    run;

/* imbalanced data NAmes*/
ods graphics / reset width=6.4in height=4.8in imagemap;
proc sgplot data=STAT1.cat_ord_encode;
    vbar Neighborhood / group=House_Style groupdisplay=stack datalabel
        stat=percent;
    yaxis grid;
    keylegend / location=inside;
run;
ods graphics / reset;


/* getting corelation heatmap of all var*/
%paint(values=-1 to 1 by 0.01, macro=setstyle,
colors=CXFF6767 magenta CX6767FF cyan white white white
white white white cyan CX6767FF magenta CXFF6767)
proc template;
delete Base.Corr.StackedMatrix / store=sasuser.templat;
edit Base.Corr.StackedMatrix;
column (RowName RowLabel) (Matrix);
header 'Pearson Correlation Coefficients';
edit matrix;
format=5.2;
%setstyle(backgroundcolor)
end;
end;
quit;
proc corr data=STAT1.cat_ord_encode noprob;
ods select PearsonCorr;
run;  /* >0.7 correlation with SalePrice -> Overall_Qual Gr_Liv_Area */

/* other >0.8 var Garage_Yr_Blt and Year_Built, BsmtFinType2_new and BsmtFin_SF_2, Total_Bsmt_SF and _1st_Flr_SF,
TotRms_AbvGrd and Gr_Liv_Area, FireplaceQu_new and Fireplaces, Garage_Area and Garage_Cars */
/* as these have high, take only one from set with highest corr with SalePrice to avoid multicollinearity*/
proc corr data=STAT1.cat_ord_encode plots=matrix;
    var SalePrice Garage_Yr_Blt Year_Built BsmtFinType2_new BsmtFin_SF_2 Total_Bsmt_SF _1st_Flr_SF
    TotRms_AbvGrd  Gr_Liv_Area FireplaceQu_new Fireplaces Garage_Area Garage_Cars ;
    with SalePrice;
run;

/* dropping highly correlated independent var. */
data STAT1.drop_corr;
set STAT1.cat_ord_encode;
drop Garage_Yr_Blt BsmtFinType2_new _1st_Flr_SF TotRms_AbvGrd Fireplaces Garage_Area;
run;



/* kurtosis >3 5.436943 -> 5.427026  Leptokurtic */
/* skewness -3 to +3 1.523838 -> 1.82252 rightly or +ve skewed */
/* need to remove outliers*/
ods noproctitle;
ods graphics / imagemap=on;
proc univariate data=STAT1.drop_corr;
    ods select Histogram;
    var SalePrice;
    histogram SalePrice / normal kernel;
    inset n skewness kurtosis / position=ne;
run;


/* checking outliers in SalePrice with CooksD */
proc reg data=STAT1.drop_corr  plots(only) = (CooksD(label));
   model SalePrice=Gr_Liv_Area Overall_Qual;
   id Order;
   output out=RegOut pred=Pred cookd=CooksD;
run; quit; /* r sq is 0.73*/

/* remove order = 1499 as it is outlier */
data STAT1.outlier_drop;
    set STAT1.drop_corr;
    if Order=1499 or Order=2181 or Order = 2182 then delete;

/* checking outliers in SalePrice with CooksD */
```

```
proc reg data=STAT1.outlier_drop  plots(only) = (CooksD(label));
   model SalePrice=Gr_Liv_Area Overall_Qual;
   id Order;
   output out=RegOut pred=Pred cookd=CooksD;
run; quit; /* r sq is 0.76*/


/* hyp testing*/
proc ttest data = stat1.outlier_drop h0=180000
    plot(only shownull) = interval;
var SalePrice;
title 'Testing if mean saleprice is 180000';
run; /* p <0.0001 , reject null hyp, therefore, mean <> 180k */


/*H0: There is no difference between the mean SalePrice of homes sold in different months.*/
/*Ha: There is a difference between mean SalePrice of homes sold in different months.*/
PROC ANOVA DATA= stat1.outlier_drop ;
CLASS Mo_Sold;
MODEL SalePrice= Mo_Sold;
MEANS Mo_Sold;
RUN;
QUIT;  /*Because our p-value 0.0074 is less than .05, we reject our null hypothesis that there is no difference
in the mean SalePrice of homes sold in different months */

/* which month should i sell my house, buy house */
ods graphics / reset width=6.4in height=4.8in imagemap;
proc sgplot data=STAT1.OUTLIER_DROP;
    vbar Mo_Sold / response=SalePrice stat=mean;
    yaxis grid;
run;
ods graphics / reset;

/* stepwise selection */
proc reg data=stat1.outlier_drop plots(only)=(adjrsq);
    Stepwise: model SalePrice=Order Lot_Frontage Lot_Area Overall_Qual Overall_Cond Year_Built
        Year_Remod_Add Mas_Vnr_Area BsmtFin_SF_1 BsmtFin_SF_2 Bsmt_Unf_SF
        Total_Bsmt_SF _2nd_Flr_SF Low_Qual_Fin_SF Gr_Liv_Area Bsmt_Full_Bath
        Bsmt_Half_Bath Full_Bath Half_Bath Bedroom_AbvGr Kitchen_AbvGr Garage_Cars
        Wood_Deck_SF Open_Porch_SF Enclosed_Porch _3Ssn_Porch Screen_Porch Pool_Area
        Misc_Val Mo_Sold Yr_Sold LotShape_new ExterQual_new ExterCond_new
        BsmtQual_new BsmtExposure_new BsmtFinType1_new HeatingQC_new KitchenQual_new
        FireplaceQu_new GarageFinish_new /selection=stepwise
        slentry=0.01 slstay=0.01 details;
    run;


proc reg data=stat1.outlier_drop plots(only)=(adjrsq);
    No_var_selection: model SalePrice=  Overall_Qual  Gr_Liv_Area    BsmtFin_SF_1
    ExterQual_new Total_Bsmt_SF Lot_Area KitchenQual_new Mas_Vnr_Area BsmtExposure_new
    Kitchen_AbvGr Garage_Cars Overall_Cond Year_Built Lot_Frontage  Bedroom_AbvGr   ;
    run;  /* adj r sq 0.8860 */


    /* reg eqn*/
/*SalePrice = -572285 + (11324 * Overall_Qual) + ... */
/* put values in it 1st question --*/


title "Final Regression Analysis";
proc reg data=stat1.outlier_drop
/*plots(label)=all;*/
    model   SalePrice = Overall_Qual  Gr_Liv_Area    BsmtFin_SF_1
    ExterQual_new Total_Bsmt_SF Lot_Area KitchenQual_new Mas_Vnr_Area BsmtExposure_new
    Kitchen_AbvGr Garage_Cars Overall_Cond Year_Built Lot_Frontage  Bedroom_AbvGr
            ;run;
quit;

/*Normalized all variables to perform PCA on them*/

title "Normalize all Predictor varibles for PCA";

proc standard data=stat1.outlier_drop mean =0 std=1
out = House_priceZ;
var Order Lot_Frontage Lot_Area Overall_Qual Overall_Cond Year_Built
        Year_Remod_Add Mas_Vnr_Area BsmtFin_SF_1 BsmtFin_SF_2 Bsmt_Unf_SF
        Total_Bsmt_SF _2nd_Flr_SF Low_Qual_Fin_SF Gr_Liv_Area Bsmt_Full_Bath
        Bsmt_Half_Bath Full_Bath Half_Bath Bedroom_AbvGr Kitchen_AbvGr Garage_Cars
        Wood_Deck_SF Open_Porch_SF Enclosed_Porch _3Ssn_Porch Screen_Porch Pool_Area
        Misc_Val Mo_Sold Yr_Sold LotShape_new ExterQual_new ExterCond_new
        BsmtQual_new BsmtExposure_new BsmtFinType1_new HeatingQC_new KitchenQual_new
        FireplaceQu_new GarageFinish_new ;
```

```
run;

title "Summary of Normalized Data";

proc means data=House_priceZ;
var Order Lot_Frontage Lot_Area Overall_Qual Overall_Cond Year_Built
        Year_Remod_Add Mas_Vnr_Area BsmtFin_SF_1 BsmtFin_SF_2 Bsmt_Unf_SF
        Total_Bsmt_SF _2nd_Flr_SF Low_Qual_Fin_SF Gr_Liv_Area Bsmt_Full_Bath
        Bsmt_Half_Bath Full_Bath Half_Bath Bedroom_AbvGr Kitchen_AbvGr Garage_Cars
        Wood_Deck_SF Open_Porch_SF Enclosed_Porch _3Ssn_Porch Screen_Porch Pool_Area
        Misc_Val Mo_Sold Yr_Sold LotShape_new ExterQual_new ExterCond_new
        BsmtQual_new BsmtExposure_new BsmtFinType1_new HeatingQC_new KitchenQual_new
        FireplaceQu_new GarageFinish_new    ;
run;


title "Regression Analysis with normalized variables";
proc reg data=House_priceZ;
/*plots(label)=all;*/
    model   SalePrice = Overall_Qual  Gr_Liv_Area    BsmtFin_SF_1
    ExterQual_new Total_Bsmt_SF Lot_Area KitchenQual_new Mas_Vnr_Area BsmtExposure_new
    Kitchen_AbvGr Garage_Cars Overall_Cond Year_Built Lot_Frontage  Bedroom_AbvGr
              ;run;
quit;


title "PCA Anlysis for all Normalized Variables";

proc princomp data=House_priceZ
plots=all;
var Order Lot_Frontage Lot_Area Overall_Qual Overall_Cond Year_Built
        Year_Remod_Add Mas_Vnr_Area BsmtFin_SF_1 BsmtFin_SF_2 Bsmt_Unf_SF
        Total_Bsmt_SF _2nd_Flr_SF Low_Qual_Fin_SF Gr_Liv_Area Bsmt_Full_Bath
        Bsmt_Half_Bath Full_Bath Half_Bath Bedroom_AbvGr Kitchen_AbvGr Garage_Cars
        Wood_Deck_SF Open_Porch_SF Enclosed_Porch _3Ssn_Porch Screen_Porch Pool_Area
        Misc_Val Mo_Sold Yr_Sold LotShape_new ExterQual_new ExterCond_new
        BsmtQual_new BsmtExposure_new BsmtFinType1_new HeatingQC_new KitchenQual_new
        FireplaceQu_new GarageFinish_new        ;
run;

/*Only 1-12 Prin Comp Eigonvalue > 1*/

title "PCA Anlysis for 12 components with all normalized Variables";

proc princomp data=House_priceZ
n=12
plots=all
out=pca_House_price;
var         Order Lot_Frontage Lot_Area Overall_Qual Overall_Cond Year_Built
        Year_Remod_Add Mas_Vnr_Area BsmtFin_SF_1 BsmtFin_SF_2 Bsmt_Unf_SF
        Total_Bsmt_SF _2nd_Flr_SF Low_Qual_Fin_SF Gr_Liv_Area Bsmt_Full_Bath
        Bsmt_Half_Bath Full_Bath Half_Bath Bedroom_AbvGr Kitchen_AbvGr Garage_Cars
        Wood_Deck_SF Open_Porch_SF Enclosed_Porch _3Ssn_Porch Screen_Porch Pool_Area
        Misc_Val Mo_Sold Yr_Sold LotShape_new ExterQual_new ExterCond_new
        BsmtQual_new BsmtExposure_new BsmtFinType1_new HeatingQC_new KitchenQual_new
        FireplaceQu_new GarageFinish_new        ;
run;


title "Multiple Linear Regression Anlysis on PCA";

proc reg data=pca_House_price outest=est_House_price2 plots=all;
    model   SalePrice = Prin1 - Prin12
    /   stb dwProb pcorr1 VIF ss1 ss2 selection=MAXR;
    OUTPUT OUT = reg_pca_House_price1 PREDICTED=PRCDT RESIDUAL = h_Res
    L95M = h_l95m U95M  = h_u95m L95 =h_l95 U95 = h_u95
    rstudent = h_rstudent h = lev cookd = Cookd dffits = dffit
    STDP = h_spredicted STDR = h_s_residual STUDENT = h_student;
quit;

title "Multiple Regression Anlysis on PCA with significant variables";

proc reg data=pca_House_price outest=est_House_price3 plots(label)=all;
    model   SalePrice = Prin1 Prin3 Prin5- Prin10
    /   stb dwProb pcorr1 VIF ss1 ss2;
    OUTPUT OUT = reg_pca_House_price2 PREDICTED=PRCDT RESIDUAL = h_Res
    L95M = h_l95m U95M  = h_u95m L95 =h_l95 U95 = h_u95
    rstudent = h_rstudent h = lev cookd = Cookd dffits = dffit
    STDP = h_spredicted STDR = h_s_residual STUDENT = h_student;

quit;
```

```sas
/*clustering*/
ods graphics on;
proc cluster data=stat1.outlier_drop method=centroid ccc print=15 pseudo out= tree;
var Year_Built SalePrice;
run;
ods graphics off;
/* From the above CCC plot, it can be seen that elbow has dropped at three.
Hence, the optimum cluster would be 2. “Optimum cluster can be found in Elbow method in Python”*/


proc stdize data=stat1.outlier_drop out=stat1.cluster method=range;
	var Overall_Qual SalePrice;
run;

proc fastclus data=stat1.outlier_drop maxclusters=2  out=stat1.Fastclus_scores;
	var Year_Built SalePrice;
run;
```