**PURE CODE**

proc import datafile="/home/u63788634/CAR DETAILS FROM CAR DEKHO.csv"

out=car\_data dbms=csv replace;

run;

proc datasets library=work;

modify car\_data;

label name='Car Name' year='Year of Manufacture' selling\_price='Selling Price'

km\_driven='Kilometers Driven' fuel='Fuel Type' seller\_type='Seller Type'

transmission='Transmission Type' owner='Number of Owners';

quit;

/\* Veri setini yazdırma \*/

proc print data=car\_data;

title 'Car data with Labels';

run;

proc print data=car\_data;

title 'Car Dataset';

run;

proc sort data=car\_data;

by descending selling\_price;

run;

proc print data=car\_data;

var km\_driven selling\_price;

run;

proc print data=car\_data double;

title 'Double-Spacing for Car Data';

run;

proc print data=car\_data;

format selling\_price dollar12.2;

title 'Car Dataset Using DOLLAR Format';

run;

data car\_data;

set car\_data;

name=upcase(name);

title 'Car Data with Upcase Function' run;

proc format;

value fuel 1='Petrol' 2='Diesel' 3='CNG';

run;

data car\_data\_formatted;

set car\_data;

formatted\_fuel=put(fuel, fuel.);

run;

proc print data=car\_data\_formatted;

title 'Formatted Car Dataset';

run;

DATA random;

INPUT @20 TYPE $1. @;

IF TYPE='1' THEN

INPUT ID 1-3 AGE 4-5 WEIGHT 6-8;

ELSE IF TYPE='2' THEN

INPUT ID 1-3 AGE 10-11 WEIGHT 15-17;

DATALINES;

12345678 2

87654321 2

008 22 550 1

;

DATA PAIRS;

INPUT @1 ID 3.

@6 (QN1-QN5) (1. +3) @7 (QC1-QC5) ($1. +3) @26 (HEIGHT AGE)

(2. +1 2.);

DATALINES;

187 1B 3B 4A 4A 6B 88 62

170 1B 3B 2B 2A 2B 98 31

;

proc univariate data=car\_data;

var selling\_price;

id name;

title 'Summary of Car Data';

run;

proc univariate data=car\_data nextrval=5 nextrobs=0;

var selling\_price;

id name;

title 'Summary of Car Data2';

run;

proc means data=car\_data

n nmiss mean median stddev range qrange min max;

var selling\_price;

title 'Single-line Summary of Car Data';

run;

proc means data=car\_data;

var selling\_price;

title 'Single-line Summary of Car Data';

run;

proc univariate data=car\_data noprint;

var selling\_price;

histogram selling\_price;

title 'Histogram for Car Data';

run;

proc univariate data=car\_data freq;

var year;

title 'Summary of Cars Manufactures';

proc freq data=car\_data;

title 'Frequance Table';

run;

goptions device=win;

pattern v=solid color=gray;

proc chart data=car\_data;

vbar transmission;

title 'Bar Chart for Cars Transmission Type';

run;

proc chart data=car\_data;

hbar transmission;

title 'Horizontal Bar Chart for Cars Transmission Type';

run;

proc means data=car\_data n mean stddev clm alpha=0.10;

var km\_driven;

title 'Summary of Km Driven Data with 90% CI';

run;

data car\_data;

set car\_data;

car\_age= 2024-year;

run;

ods select TestsForLocation;

proc univariate data=car\_data;

var year;

title 'Testing for Differences between Production Year';

run;

proc ttest data=car\_data;

paired selling\_price\*km\_driven;

title 'Paired Differences with PROC TTEST';

run;

proc chart data=car\_data;

vbar year / group=fuel;

title 'Charts for Fuel Usage';

run;

proc npar1way data=car\_data wilcoxon;

class fuel;

var year;

title 'Comparison of Ulcer and Control Patients';

run;

proc gchart data=car\_data;

hbar transmission / nostat descending sumvar=km\_driven;

run;

proc gchart data=car\_data normal;

var year;

run;

proc univariate data=car\_data;

var selling\_price year;

histogram selling\_price / normal(color=red);

histogram year / normal(color=blue);

title 'Normality Test for Selling Price and Year';

run;

data car\_data;

set car\_data;

horsepower = 200 + ceil(rand('uniform') \* 200);

run;

proc sgplot data=car\_data;

vbar year / response=horsepower stat=sum;

title 'Horsepower Total Over Years';

run;

proc univariate data=car\_data;

var year;

probplot year / normal(mu=est sigma=est color=red);

run;

proc means data=car\_data n mean stddev clm maxdec=2;

var horsepower;

run;

data bodyfat;

input gender $ fatpct @@;

format gender $gentext.;

label fatpct='Body Fat Percentage';

datalines;

f 18.7 m 26 f 15 m 21 f 16 m 21 f 6 m 9 f 13 m 25.2

f 20 m 23.2 f 17 m 21 f 29 m 32 f 11 m 20 f 9 m 27

f 15 f 11 f 20

;

run;

proc means data=bodyfat;

class gender;

var fatpct;

title 'Brief Summary of Groups';

run;

ods select moments basicmeasures extremeobs plots;

proc univariate data=bodyfat plot;

class gender;

var fatpct;

title 'Detailed Summary of Groups';

run;

proc univariate data=bodyfat noprint;

class gender;

var fatpct;

histogram fatpct;

title 'Comparative Histograms of Groups';

run;

proc chart data=bodyfat;

vbar fatpct / group=gender;

title 'Charts for Fitness Program';

run;

proc ttest data=bodyfat;

class gender;

var fatpct;

title 'Comparing Groups in Fitness Program';

run;

proc npar1way data=bodyfat wilcoxon;

class gender;

var fatpct;

title 'Comparison of Gender';

run;

ods select wilcoxontest;

proc npar1way data=bodyfat wilcoxon;

class gender;

var fatpct;

run;

data data2;

input gender $ age weight height;

datalines;

M 25 70 185

F 30 65 150

F 35 80 152

F 28 55 172

M 40 85 166

;

run;

data data2;

set data2;

bmi=weight / (height \* height) \* 10000;

run;

proc means data=data2 n mean stddev clm maxdec=3;

var bmi;

title 'sumarry of body mass index';

run;

proc means data=data2 n mean stddev clm alpha=0.01;

var bmi;

title 'Summary of Body Mass index Data with 99% CI';

run;

proc means data=data2;

class gender;

var bmi;

title 'Brief Summary of bmi';

run;

proc univariate data=data2 noprint;

class gender;

var bmi;

histogram bmi / nrows=2;

title 'Comparative Histograms by Gender ';

run;

proc boxplot data=data2;

plot bmi\*gender;

title 'Box Plot of BMI for Males';

run;

data jobmetrics;

input Department $ 1-12 TotalEmployees AverageAge YearlyBudget;

datalines;

IT 37558 43 136200

IT 26128 40 99760

IT 25104 37 75720

HR 6844 27 74432

HR 7614 25 59363

Finance 49710 52 126000

Marketing 22000 32 82550

Analyst 46754 45 128935

Analyst 41215 41 111992

Sales 27697 29 86700

;

run;

proc print data=jobmetrics;

run;

proc anova data=jobmetrics;

class Department;

model TotalEmployees=Department;

;

title 'ANOVA for Department Salaries';

run;

proc anova data=jobmetrics;

class Department;

model YearlyBudget=Department;

means Department / hovtest;

title 'Testing for Equal Variances';

run;

proc anova data=jobmetrics;

class Department;

model YearlyBudget=Department;

means Department / welch;

title 'Welch ANOVA for Job Metrics Data';

run;

proc npar1way data=jobmetrics wilcoxon;

class Department;

var YearlyBudget;

title 'Nonparametric Tests for Job Metrics Data';

run;

proc anova data=jobmetrics;

class Department;

model YearlyBudget=Department;

means Department / t;

title 'Multiple Comparisons with t Tests';

run;

proc anova data=jobmetrics;

class Department;

model YearlyBudget=Department;

means Department / bon;

title 'Multiple Comparisons with t Tests';

run;

proc anova data=jobmetrics;

class Department;

model YearlyBudget=Department;

means Department / tukey;

title 'Multiple Comparisons with t Tests';

run;

proc anova data=jobmetrics;

class Department;

model YearlyBudget=Department;

means Department / dunnett('Sales');

title 'Means Comparisons with Sales as Control';

run;

ods graphics on;

ods select ScatterPlot;

proc corr data=jobmetrics plots=scatter(noinset ellipse=none);

var YearlyBudget AverageAge;

run;

ods graphics off;

ods graphics on;

ods select MatrixPlot;

proc corr data=jobmetrics plots=matrix(histogram nvar=all);

var YearlyBudget AverageAge TotalEmployees;

run;

ods graphics off;

ods select SimpleStats;

proc corr data=jobmetrics;

var YearlyBudget AverageAge TotalEmployees;

title 'Summary Statistics for Job Parametrics Data Set';

run;

proc corr data=jobmetrics;

var YearlyBudget AverageAge TotalEmployees;

title 'Correlations for Job Parametrics Data Set';

run;

proc reg data=jobmetrics;

model YearlyBudget=TotalEmployees;

plot YearlyBudget\*TotalEmployees / nostat cline=red;

title 'Straight-line Regression for Job Parametrics Data';

run;

ods select SimpleStats;

ods graphics on

proc reg data=car\_data plots(only)=fit(stats=none);

model selling\_price=km\_driven;

title 'Regression for Car Data';

run;

quit;

ods graphics off;

ods graphics on;

proc reg data=car\_data plots(only)=fit(nocli stats=none);

model selling\_price=km\_driven;

run;

quit;

ods graphics off;

symbol1 color=blue;

symbol2 color=red line=1;

symbol3 color=green line=2;

symbol6 color=purple line=3;

plot km\_driven\*selling\_price / pred conf nostat;

run;

data data3;

input gender $ age weight height;

height2=height\*height;

bmi=weight/height2;

datalines;

M 25 60 1.85

F 30 65 1.50

F 35 80 1.90

F 28 55 1.82

M 40 43 1.66

M 25 59 1.75

F 30 65 1.48

F 35 77 1.87

F 28 59 1.72

M 40 42 1.56

;

run;

ods graphics on;

ods select ScatterPlot;

proc corr data=data3 plots=scatter(noinset ellipse=none);

var weight bmi;

title 'Scatterplot for BMI Data';

run;

ods graphics off;

proc reg data=data3;

id bmi;

model bmi=height height2 / p cli clm;

title 'Fitting a Curve to the BMI Data';

run;

ods select OutputStatistics;

proc reg data=data3 alpha=0.1;

model bmi=height height2 / p cli clm;

title '90% Limits for BMI Data';

run;

ods graphics on;

ods select PredictionPlot;

proc reg data=data3 alpha=0.10 plots(only)=predictions(x=height unpack);

model bmi=height height2;

run;

quit;