/\*Creating listing using DATALIST\*/

/\*Initialize system\*/

%initsystems(initstudy=4, mosto=6, spro=3, adamap=1, gral=4, eva=1, poster=1, woops=1, cars=1)

/\*Considering Wagon cars\*/

DATA cars;

SET sashelp.cars;

WHERE type="Wagon";

RUN;

/\*Column alignment\*/

%insertoption(namevar=model, width=25mm, keep=n);

%insertoption(namevar=msrp, width=25mm, keep=n, Align=C);

%insertoption(namevar=invoice, width=25mm, keep=n, Align=C);

%insertoption(namevar=enginesize, width=25mm, keep=n, Align=C);

%insertoption(namevar=cylinders, width=25mm, keep=n, Align=C);

%insertoption(namevar=horsepower, width=25mm, keep=n, Align=C);

/\*Listing creation\*/

TITLE "Listing of all Wagon cars by region and manufacturer" justify=center;

%datalist(

data = cars

, page = origin

, by = make

, var = model msrp invoice enginesize cylinders horsepower

, freeline = make

, together =

, maxlen = 20

)

/\*Creating listing using PROC REPORT\*/

/\*Creating format for origin\*/

ODS listing close;

PROC FORMAT noprint;

value $origin 'Asia'='Asia'

'Europe'='Europe'

'USA'='USA'

;

RUN;

/\*Considering Wagon cars data\*/

DATA cars;

SET sashelp.cars;

WHERE type="Wagon";

RUN;

/\*Creating Listing\*/

title "Listing of all Wagon cars by region and manufacturer" justify=center;

ODS listing;

PROC REPORT data=cars nowd headline headskip spacing=2 ls=142 ps=40 ;

column ("\_\_" origin make model msrp invoice enginesize cylinders horsepower);

define origin / group noprint;

define make / display "MAKE" group width=25 ;

define model / display "MODEL" width=20 ;

define msrp / display "MSRP" width=20 center ;

define invoice / display "INVOICE" width=15 center ;

define enginesize/ display width=18 center ;

define cylinders / display "CYLINDERS" width=14 center ;

define horsepower / display "HORSEPOWER" width=14 center ;

compute before \_page\_ / left;

line 'ORIGIN: ' origin $origin. ;

line ' ';

endcomp;

break after make /skip;

RUN;

ODS listing CLOSE;

/\* Exercise 2 \*/

/\*Considering Asian cars\*/

DATA cars1;

SET sashelp.cars;

WHERE Origin="Asia";

RUN;

title "Descriptive statistics for physical characteristics of Asian cars" justify=center;

%desc\_freq\_tab(

data = cars1

, var = horsepower Weight length wheelbase

, class = type

, total = NO

, stat = MIN MEAN MAX

)

/\*Initialize system\*/

%initsystems(initstudy=4, mosto=6, spro=3, adamap=1, gral=4, eva=1, poster=1, woops=1, cars=1)

/\* Exercise 3 \*/

/\*Distribution of car design types by region\*/

DATA cars3;

SET sashelp.cars;

RUN;

title "Distribution of car design types by region" justify=center;

%freq\_tab(

data = cars3

, var = type drivetrain

, class = origin

, total = YES

)

/\* Exercise 4 \*/

/\*Initialize system\*/

%initsystems(initstudy=4, mosto=6, spro=3, adamap=1, gral=4, eva=1, poster=1, woops=1, cars=1)

/\*Availability of cars under $12000 by region and manufacturer\*/

DATA bign(rename=(type=type\_1));

SET sashelp.cars;

ord=\_n\_;

RUN;

DATA cars4;

SET bign;

where msrp <12000;

RUN;

title "Availability of cars under $12,000 by region and manufacturer" justify=center;

%incidence\_print(

data = cars4

, data\_n = bign

, subject = ord

, var = origin make

, class = type\_1

, total = YES

, evlabel = Manufacturer

, anytxt = Any car under $12k

)

/\* Exercise 5 \*/

/\*Initialize system\*/

%initsystems(initstudy=4, mosto=6, spro=3, adamap=1, gral=4, eva=1, poster=1, woops=1, cars=1)

/\*Difference between MSRP and Invoice price by region\*/

DATA car5;

SET sashelp.cars;

diff=msrp-invoice;

RUN;

title "Difference between MSRP and Invoice price by region" justify=center;

%overview\_tab(

data = car5

, data\_n = car5

, class = origin

, subject = make model invoice

, total = NO

, groups = "diff<300"\*"Less than $300"

"300<=diff<1000"\*"$300 up to $1000"

"1000<=diff<2000"\*"$1000 up to $2000"

"2000<=diff<3000"\*"$2000 up to $3000"

"diff>=3000"\*"$3000 and above"

)

/\*Exercise 6\*/

/\*Creating listing using DATALIST\*/

/\*Initialize system\*/

%initsystems(initstudy=4, mosto=6, spro=3, adamap=1, gral=4, eva=1, poster=1, woops=1, cars=1)

/\*The most expensive cars manufactured in Asia by type\*/

proc sort data=sashelp.cars(keep=origin type make model msrp invoice cylinders horsepower) out=cars6\_ ;

by origin type descending invoice;

RUN;

proc sort data=cars6\_ out=cars6 nodupkey;

by origin type;

RUN;

proc sort data=sashelp.cars(keep=origin) out=orig nodupkey;

by origin ;

RUN;

/\*Column alignment\*/

%insertoption(namevar=model, width=25mm, keep=n);

%insertoption(namevar=msrp, width=25mm, keep=n, Align=C);

%insertoption(namevar=invoice, width=25mm, keep=n, Align=C);

%insertoption(namevar=cylinders, width=25mm, keep=n, Align=C);

%insertoption(namevar=horsepower, width=25mm, keep=n, Align=C);

ods exclude all;

/\*Listing creation\*/

PROC FORMAT NOPRINT;

value $origin 'Asia'='Asia'

'Europe'='Europe'

'USA'='USA'

;

RUN;

ods exclude none;

ods listing;

title "The most expensive cars manufactured in $origin$ by type" justify=center;

%datalist(

data = cars6

, page = origin

, by =

, order = origin

, tablesby = orig

, var = type make model msrp invoice cylinders horsepower

, maxlen = optimal

)

/\*Exercise 7\*/

/\*Initialize system\*/

/\*Creating table using DATALIST\*/

%initsystems(initstudy=4, mosto=6, spro=3, adamap=1, gral=4, eva=1, poster=1, woops=1, cars=1)

data cars7;

set sashelp.cars;

value=invoice;

RUN;

/\*Column alignment\*/

%insertoption(namevar=make, width=15mm, keep=n);

%insertoption(namevar=model, width=32mm, keep=n);

%insertoption(namevar=type, width=15mm, keep=n);

%insertoption(namevar=drivetrain, width=12mm, keep=n);

%insertoption(namevar=msrp, width=15mm, keep=n, Align=C);

%insertoption(namevar=invoice, width=15mm, keep=n, Align=C);

%insertoption(namevar=enginesize, width=15mm, keep=n, Align=R);

%insertoption(namevar=cylinders, width=15mm, keep=n, Align=R);

%insertoption(namevar=horsepower, width=15mm, keep=n, Align=R);

%insertoption(namevar=mpg\_city, width=12mm, keep=n, Align=R);

%insertoption(namevar= mpg\_highway, width=12mm, keep=n, Align=R);

%insertoption(namevar=weight, width=12mm, keep=n, Align=R);

%insertoption(namevar=wheelbase, width=12mm, keep=n, Align=R);

%insertoption(namevar=length, width=12mm, keep=n, Align=R);

/\*RTF creation\*/

%startMostoRTF(file=/var/swan/root/bhc/general/playground/training/12345/stat/main20/dev/analysis/docum/e7, onlyrtf=NO, toc=NO,toctable=NO);

TITLE "Listing of all cars" justify=center;

%datalist(

data = cars7

, page = origin

, by = make descending value

, order = value

, var = model type drivetrain msrp invoice enginesize cylinders horsepower mpg\_city mpg\_highway weight wheelbase length

, freeline = make

, together =

)

%endMostoRTF;