STAT 8320 Spring 2015 Assignment 2

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```
libname da2 'C:\Users\psy6b\Desktop\8320 datasets';
ods graphics on;
options ls=70 ps=35;

data split;
set da2.h4q4;
run;

data alzheim;
set da2.h4q5;
drop score1-score5;
run;

PROC MIXED DATA=split noitprint method=type1;
CLASS plot past min;
MODEL milk=past|min/s;
RANDOM plot plot*past/s;
RUN;

PROC MIXED DATA=split noitprint method=type1;
CLASS plot past min;
MODEL milk=past|min / ddfm=kenwardroger s;
RANDOM plot plot*past / s;
LSMEANS past / adjust=tukey;
RUN;
```

```
symbol1 interpol=join color=black line=1 repeat=47;

proc gplot data=alzheim;
where group=1;
plot score*visit=idno;
run;

proc gplot data=alzheim;
where group=2;
plot score*visit=idno;
run;

proc mixed data=alzheim method=ml noitprint;
class idno group;
model score=group*visit/ s outp=rdint;
random int/subject=idno;
run;

proc mixed data=alzheim method=ml noitprint;
class idno group;
model score=group*visit/ s outp=rdcoe;
random int visit/subject=idno type=un;
run;
proc mixed data=alzheim method=ml noitprint;
class idno group;
model score=group|visit/ s outp=rdcoe;
random int visit/subject=idno type=un;
run;

proc mixed data=alzheim noitprint;
class group visit;
model score=group*visit/ s outp=repmar;
repeated visit / subject=idno type=ar(1);
run;

proc mixed data=alzheim noitprint;
class idno group visit;
```

```
model score=group*visit/ s outp=repun;
repeated visit / subject=idno type=un;
run;

proc gplot data=rdint;
where group=1;
plot pred*visit=idno;
run;

proc gplot data=rdint;
where group=2;
plot pred*visit=idno;
run;

proc gplot data=rdcoe;
where group=1;
plot pred*visit=idno;
run;

proc gplot data=rdcoe;
where group=2;
plot pred*visit=idno;
run;
```

Figure 1: Regression Analysis

The Mixed Procedure

Model Information

Data Set	WORK.SPLIT
Dependent Variable	milk
Covariance Structure	Variance Components
Estimation Method	Type 1
Residual Variance Method	Factor
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Figure 1: *continued*

Class Level Information

Class	Levels	Values
plot	3	1 2 3
past	4	1 2 3 4
min	2	1 2

Dimensions

Covariance Parameters	3
Columns in X	15
Columns in Z	15
Subjects	1
Max Obs per Subject	24

Number of Observations

Number of Observations Read	24
Number of Observations Used	24
Number of Observations Not Used	0

Figure 2: Graphs for Regression Analysis

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