```
*SAS Repeated Measure Analysis;
/*
Repeated measure analysis is used when all members of a random sample
are measured under a number of different conditions. As the sample is exposed
to each condition in turn, the measurement of the dependent variable is repeated.
 Using a standard ANOVA in this case is not appropriate because it fails to model
 the correlation between the repeated measures.

One should be clear about the difference between a repeated measures design
and a simple multivariate design. For both, sample members are measured on
several occasions, or trials, but in the repeated measures design, each
trial represents the measurement of the same characteristic under a different condition.

Syntax:
PROC GLM DATA = dataset;
   CLASS variable;
   MODEL variables = group / NOUNI;
   REPEATED TRIAL n;

CLASS gives the variables the variable used as classification variable.

MODEL defines the model to be fit using certain variables form the dataset.

REPEATED defines the number of repeated measures of each group to test the
hypothesis.
*/

/*
Example:
Consider the example below in which we have two groups of people
subjected to test of effect of a drug. The reaction time of each person
is recorded for each of the four drug types tested. Here 5 trials are
done for each group of people to see the strength of correlation
between the effect of the four drug types.
*/
```

```
DATA temp;
   INPUT person group $ r1 r2 r3 r4;
CARDS;
1 A  2  1  6  5
2 A  5  4 11  9
3 A  6 14 12 10
4 A  2  4  5  8
5 A  0  5 10  9
6 B  9 11 16 13
7 B  12 4 13 14
8 B  15 9 13  8
9 B  6  8 12  5
10 B 5  7 11  9
;
RUN;
```

```
PROC PRINT DATA = temp ;
RUN;
```

```
   PROC GLM DATA = temp;
   CLASS group;
   MODEL r1-r4 = group / NOUNI ;
   REPEATED trial 5;
RUN;
```