```
data crime;
    infile '/home/u58672568/sasuser.v94/Project/Crime_SPSS.csv' dlm=',' firstobs=2;
    input CrimeRate $ Youth Education Expenditure LabourForce StateSize YouthUnemployment Wage $;
run;


data crime2; set crime;
    CrimeRate_numeric = input(CrimeRate, best5.);
    Wage_numeric = input(Wage, best5.);
run;

proc rsquare cp mse;
model CrimeRate_numeric = Youth Education Expenditure LabourForce StateSize YouthUnemployment Wage_numeric;
run;

data crime_finalmodel;
set WORK.crime2;
drop CrimeRate StateSize Wage_numeric;
keep CrimeRate_numeric Youth Education Expenditure LabourForce YouthUnemployment;
run;

proc corr data = crime_finalmodel;
proc reg data = crime_finalmodel;
model CrimeRate_numeric = Youth Education Expenditure LabourForce YouthUnemployment / p vif;
run;

data crime_transformation; set crime_finalmodel;
    yt = log(CrimeRate_numeric);
run;
proc reg data = crime_transformation;
model CrimeRate_numeric = Youth Education Expenditure LabourForce YouthUnemployment;
plot rstudent.*predicted.;
run;
proc reg data = crime_transformation;
model yt = Youth Education Expenditure LabourForce YouthUnemployment;
plot rstudent.*predicted.;
run;
```