1. Using the “Family Lung” data set fit the regression plane for the father using FVC of father as the dependent variable and age and height of the father as the independent variables (see below)
2. For the “Depression” dataset predict the reported level of depression as given by CESD, using income, sex, age as independent variables. Analyze the residuals and decide whether or not it is reasonable to assume that they follow a normal distribution.
3. Using the “Family Lung” data set fit a regression model to predict height of the oldest child by choosing from among the variables: AGE of oldest child, WEIGHT of oldest child, HEIGHT of the mother, WEIGHT of the mother, HEIGHT of the father, WEIGHT of the father (see below).

Lung data set description:

**Value Variable description**

1 to 150 Identification number

1 = Burbank Area

2 = Lancaster

3 = Long Beach

4 = Glendora

1 = Male Gender, father

Continuous Age, father

Continuous Height (inches), father

Continuous Weight (lbs), father

Continuous FVC father

Continuous FEV1 father

2 = Female Gender, mother

Continuous Age, father

Continuous Height (inches), mother

Continuous Weight (lbs), mother

Continuous FVC mother

Continuous FEV1 mother

1 = Male Sex, oldest child

2 = Female

Continuous Age, oldest child

Continuous Height oldest child

Continuous Weight, oldest child

Continuous FVC oldest child

Continuous FEV1 oldest child

1 = Male Sex, middle child

2 = Female

Continuous Age, middle child

Continuous Height, middle child

Continuous Weight, middle child

Continuous FVC middle child

Continuous FEV1 middle child

1 = Male Sex, youngest child

2 = Female

Continuous Age, youngest child

Continuous Height, youngest child

Continuous Weight, youngest child

Continuous FVC youngest child

Continuous FEV1 youngest child