Building A Model:

**Backward elimination:**

-step1- Select a significance level to stay in the model (e.g sl = 0.05) # Default

-step2-fit the full model with all possible predictors

-step3- Consider the predictor with the highest P-value. if P>SL, go to STEP4, otherwise go to FİNİSH

-step4-Remove the predictor

-step5- Fit model without this variable\* Go to step3 and again find a new P value

***Forward Selection:***

-step1- Select a significance level to stay in the model (e.g sl = 0.05)

-step2- Fit all simple regression models y-xn select the one with the lowest P-value

-step3- Keep this variable and fit all possible models with one extra predictor added to the

one(s) you already have

-step4-Consider the predictor with the lowest P-value if P > SL, go to STEP3, otherwise go to finish

**Bidirectional Elimination:**

-step1-Select a significance level to enter and to stay in the model(e.g: SLENTER = 0.05, SLSTAY = 0.05)

-step2-Perform the nexxt step of Forward Selection (new variables must have : P < SLENTER to enter)

-step3- Perform all steps of Backward elimination (old variables must have P < SLSTAY to stay)

-step4- No new variables can enter and no old variables can exit

**All Possible Models**:

-step1- Select a criterion of goodness of fit(e.g Akaike criterion)

-step2-Construct All Possible Regression Models 2^n -1 total combinations

-step3- Select the one with the best criterion

FİN: Your model is ready

**5 Methods of building models**

* All in
* Backward Elimination
* Forward Selection
* Bidirectional Elimination
* Score Comparison