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## **ASSIGNMENT – 06**

### **TOPIC: MULTIPLE LINEAR REGRESSION (With Backward Elimination)**

Q.1. Automatic Backward Elimination.

**Ans. Backward elimination** is a feature selection technique while building a machine learning model. It is used to remove those features that do not have a significant effect on the dependent variable or prediction of output.

#### **STEPS FOR BACKWARD ELIMINATION:**

**Step-1:** Firstly, We need to select a significance level to stay in the model. (SL=0.05)

**Step-2:** Fit the complete model with all possible predictors/independent variables.

**Step-3:** Choose the predictor which has the highest P-value, such that.

- a. If P-value > SL, go to step 4.
- b. Else Finish, and Our model is ready.

**Step-4:** Remove that predictor.

**Step-5:** Rebuild and fit the model with the remaining variables.