REGRESSION ANALYSIS INTERVIEW QUESTIONS

ASKED IN REAL INTERVIEWS

Fox Omega

1.What are the assumptions of linear regression? (**Delhivery, ANZ bank, Citi Bank, Accenture)**

2. What is the meaning of multicollinearity? **(ANZ, Amazon)**

3. How to detect multicollinearity? **(Amazon, Delhivery)**

4. What do you understand by VIF (Variance Inflation Factor)? **(Amazon)**

5. What is the difference between R-squared and adjusted R-squared? **(Delhivery, ANZ bank, Citi Bank, Accenture)**

6. How to deal with multicollinearity in data? **(Citi, Accenture)**

7. Explain forward and backward elimination? **(Accenture)**

8. How PCA works? (**ICICI securities, Amazon, Miko.ai)**

9. Explain Ridge and Lasso Regression? **(Delhivery, ANZ bank, Citi Bank, Accenture, Amazon)**

10. Can SVM be used for regression? **(Miko.ai)**

11. What is the curse of dimensionality? Can you give an example?

12. What is the difference between the coefficient of determination, and coefficient of correlation?

13. Give methods of variable selection in Regression Analysis? **(Delhivery, ANZ bank, ICICI securities)**

14. Why do we perform the residual analysis? **(ANZ)**
15. What are L1 and L2 penalization? **(Miko.ai)**
16. What is heteroscadasticity? How does it affect the regression coefficients? **(ANZ)**
17. Why does only VIF>10 implies that there is multicollinearity, why not choose vif>8? **(IDFC First Bank)**
18. In my dataset, if I have 100 observations and 1500 features, do you think whether I would be able to fit the regression model onto that or not? **(IDFC First Bank)**
19. For a single variable, how will you detect outliers? **(ICICI Lombard)**
20. How correlation between two variables will change in presence of an outlier? Will it increase, decrease or remain constant? Explain how, using its formula. **(ICICI Lombard)**
21. What are influential and leverage points? Which of them have more effect on the model? **(ANZ, Wells Fargo)**
22. Does multicollinearity impact the prediction of a machine learning algorithm? **(Wells Fargo)**