1. Explain the linear regression algorithm in detail.
2. What are the assumptions of linear regression regarding residuals?
3. What is the coefficient of correlation and the coefficient of determination?
4. Explain the Anscombe's quartet in detail.
5. What is Pearson's R?
6. What is scaling? Why is scaling performed? What is the difference between normalized scaling and standardized scaling?
7. You might have observed that sometimes the value of VIF is infinite. Why does this happen?
8. What is the Gauss-Markov theorem?
9. Explain the gradient descent algorithm in detail.
10. What is a Q-Q plot? Explain the use and importance of a Q-Q plot in linear regression.