**Velocity Corporate Training Center, Pune Linear Regression Interview Questions**

1. What is Linear regression?

2. How do you represent a simple linear regression?

3. What is multiple linear regression?

4. What are the assumptions made in the Linear regression model?

5. What if these assumptions get violated?

6. What is the assumption of homoscedasticity?

7. What is the assumption of normality?

8. How to prevent heteroscedasticity?

9. What does multicollinearity mean?

10. What are feature selection and feature scaling?

11. How to find the best fit line in a linear regression model?

12. Why do we square the error instead of using modulus?

13. What are techniques adopted to find the slope and the intercept of the linear regression line which best fits the model?

14. What is cost Function in Linear Regression?

15. briefly explain gradient descent algorithm

16. How to evaluate regression models?

17. Which evaluation technique should you prefer to use for data having a lot of outliers in it? 18. What is residual? How is it computed?

19. What are SSE, SSR, and SST? and What is the relationship between them? 20. What’s the intuition behind R-Squared?

21. What does the coefficient of determination explain?

22. Can R² be negative?

23. What are the flaws in R-squared?

24. What is adjusted R²?

25. What is the Coefficient of Correlation: Definition, Formula

26. What is the relationship between R-Squared and Adjusted R-Squared? 27. What is the difference between overfitting and underfitting?

28. How to identify if the model is overfitting or underfitting?

29. How to interpret a Q-Q plot in a Linear regression model?

30. What are the advantages and disadvantages of Linear Regression? 31. What is the use of regularisation? Explain L1 and L2 regularisations.