1. A

2. B

3. C

4. A

5. B

6. A, D

7. B,C

8. B

9. B,C

10. The adjusted R-squared is able to identify that the input variable x1,x2 is helpful in explaining the output variable Y. Example: x1 is temperature, x2 is price of dough, Y is price of pizza. Temperature is not helping to predict the prize of pizza, only price of dough is related to predict the price of pizza. That's how adjusted R-squared penalize the presence of unnecessary predictors in the model.

11. The difference between ridge and lasso regression is that it tends to make coefficients to absolute zero as compared to Ridge which never sets the value of coefficient to absolute zero.

12.VIF means Variance Inflation Factor provides the measure of multicollinearity among the independent variable. The suitable value of VIF for in regression model is more than one or equal to one.

13. To reduce the number of parameters.

14. Two different metrics can be used to check the linear regression module performance.

- MSE-Mean Squared Error
- R^{2-} R-Squared

15. Sensitivity/Recall=0.80

Specificity=0.96

Accuracy=0.88

Precession=0.95