

You are to build a model that can suggest the amount of loan that can be pre-approved for a customer, given various other information about the customer. What kind of algorithm would you usually go for?

- ☒ Regression
- ☐ Classification
- ☐ Clustering
- ☐ Reinforcement learning

Warning

This operation is disabled.

Ok

What does the score() function of a regression model in scikit learn library return?

- ☒ R2 value
- ☐ RMSE value
- ☐ Accuracy value
- ☐ Precision value

Warning

This operation is disabled

The best fit linear regression model _____.

- ☐ minimizes the intercept
- ☐ minimizes the regression coefficients
- ☒ minimizes the error
- ☐ minimizes the number of predictors

Assume that 2 regression models M1 and M2, are built to predict the sales demand of various products. The coefficient of determination (R^2) of both the models are found to be 0.4 and 0.7 respectively. Based on the above values, choose the correct statement.

- ☐ M1 is better model than M2
- ☒ M2 is better model than M1
- ☐ Coefficient of determination cannot be used
- ☐ Both M1 and M2 cannot be used, as R^2 value

Warning

This operation is disabled.

Linear regression model has a prediction range of _____.

- ☐ [-1,1]
- ☐ [0,1]
- ☒ [-infinity, +infinity]
- ☐ [0, +infinity]

Warn

This c

Why should there be no significant outliers in the data when building a linear regression model?

- ☐ Outliers result in longer training time.
- ☒ Outliers result in high variance in predictions.

Warning

Which of the following is NOT an assumption made by linear regression about its data?

- ☐ Training samples should be independent of each other
- ☒ There should be linear relationships between the features
- ☐ The residuals of a regression should exhibit constant variance
- ☐ There should not be any significant outliers

Warning

This operation is disabled.

When analyzing features for building a machine learning model, the below values for Variance Inflation Factor (VIF) are observed for each of the features.

Feature Name	VIF
Location	2
Area	1.5
Water_level	4
Air_grade	Infinity
Population	Infinity

Warning

This operation is disabled.

Ok

Based on the above values, select the most correct statement. Location and Population are highly correlated.

- ☐ Air_grade and Population are the best predictors.
- ☒ Air_grade and Population should not be selected as the predictors
- ☐ Only one of Air_grade and Population should be selected as the predictor.
- ☐ Feature selection cannot be done using VIF.

Select the factors that best describe a good regression model.

- ☐ High RMSE, high R^2
- ☐ High RMSE, low R^2
- ☒ Low RMSE, high R^2
- ☐ Low RMSE, low R^2

Warning

This opera

Which of the below factors are considered while calculating adjusted R-squared?

- i. Number of features
- ii. Number of training instances
- iii. Number of test instances
- iv. Number of unique values

- ☐ Only i
- ☒ Only i and ii
- ☐ Only ii and iv
- ☐ All i, ii, iii and iv

Warning

This operation is disabled

Ok

Two variables, 'Manufacturing_time' increases with decrease in 'Processing_speed' and vice-versa. What does 'Manufacturing_time' and 'Processing_speed' exhibit?

- ☐ Positive correlation
- ☒ Negative correlation
- ☐ Zero correlation
- ☐ None of the above

Warning

This operation is disabled.

Thank you. Your test submitted.

You have cleared this assessment.

Obtained Percentage

Obtained Marks

90.91 %

10 / 11

Best Attempt Score:90.91 % on 22-03-2025