




# ML \ Linear Regression

3 plays · 27 players

 A private kahoot

## Questions (25)

### 1 - Quiz

**Which method is used to evaluate the performance of a linear regression model?**

10 sec



Accuracy



Gradient Descent



Recall



Mean Squared Error (MSE)



### 2 - Quiz

**What is the difference between supervised and unsupervised learning?**

20 sec



SL requires human supervision, unsupervised learning does not



SL uses labeled data, unsupervised learning uses unlabeled data



Supervised learning predicts future events, unsupervised learning does not



There is no difference



## 3 - Quiz

**What is linear regression primarily used for?**

10 sec



Classification



Dimensionality reduction



Regression



Clustering



## 4 - Quiz

**What technique is commonly used to find the best-fit line in linear regression?**

10 sec



Gradient Descent



Random Forest



K-means clustering



Support Vector Machines (SVM)



## 5 - Quiz

**What is the purpose of the intercept term in linear regression?**

10 sec



It defines the slope of the line



It minimizes errors



It defines the starting point of the line



It maximizes accuracy



## 6 - Quiz

**Which term represents the predicted output in linear regression?**

10 sec



Slope



Predicted value



Residual



Intercept



## 7 - Quiz

**What is the name of the line that best fits the data in linear regression?**

10 sec



Best line



Optimal line



Regression Model



Linear line



## 8 - Quiz

**What is the formula for the equation of a simple linear regression line?**

10 sec

 $y = mx_1 + mx_2 + c$  $y = ax^2 + bx + c$  $y = mx^2 + c$  $y = ax + b$ 

## 9 - Quiz

**What does 'a' represent in the equation( $y=ax + b$ ) of a simple linear regression line?**

10 sec



Slope



Intercept



Coefficient



Residual



## 10 - True or false

**Java is the commonly used programming language for implementing machine learning algorithms**

10 sec



True



False



## 11 - Quiz

**What is the primary goal of machine learning?**

10 sec



Automate human tasks



Detect pattern in data



Improve internet speed



Create intelligent robots



## 12 - Quiz

**What is the objective of linear regression?**

10 sec



Maximize accuracy



Maximize precision



Minimize errors



Minimize features



## 13 - Quiz

**What does the term "features" refer to in the context of machine learning?**

20 sec



The main function of a machine learning model



Individual columns in the dataset



The accuracy of a model's predictions



The number of data points in a dataset



## 14 - Quiz

**In simple linear regression, how many independent variables are there?**

10 sec



Three



Two



One



None



## 15 - Quiz

**In linear regression, what does the term ' $\hat{Y}$ ' represent?**

10 sec



Predicted value



True value



Intercept



Residual



## 16 - Quiz

**What is the purpose of residual analysis in linear regression?**

10 sec



To find outliers



To assess the distribution of errors



To evaluate multicollinearity



To estimate coefficients



## 17 - Quiz

**What is the goal when minimizing residuals in linear regression?**

20 sec



To make all residuals positive



To make all residuals zero



To make the sum of squared residuals as small as possible



To maximize the number of observations



## 18 - Quiz

**What is the purpose of feature scaling in linear regression?**

20 sec



To increase the interpretability of the model



To decrease the computational cost of training



To reduce the number of features



To standardize the range of independent variables



## 19 - Quiz

**Which type of machine learning algorithm is used for making predictions based on labeled data?**

20 sec



Unsupervised learning



Reinforcement learning



Supervised learning



Semi-supervised learning



## 20 - True or false

**The purpose of the coefficient in linear regression is to define the slope of the line**

10 sec



True



False



## 21 - Quiz

**What is multicollinearity in linear regression?**

20 sec



When there are multiple dependent variables



When there are multiple independent variables that are highly correlated



When there are missing values in the dataset



When there are outliers in the dataset



## 22 - Quiz

**What does the term 'residual' represent in linear regression?**

20 sec



The difference between observed and predicted values



The slope of the regression line



The coefficient of determination



The ratio of features to observations



## 23 - Quiz

In multiple linear regression, how many independent variables are there?

10 sec



One



Two



More than two



None



## 24 - Quiz

What is the formula for calculating Mean Squared Error (MSE) in linear regression?

20 sec

 $MSE = \sum (Y - \hat{Y})^2$  $MSE = \sum (Y - \hat{Y}) / n$  $MSE = \sum (Y - \hat{Y})^2 / n$  $MSE = \sum (Y - \hat{Y})$ 

## 25 - Quiz

How to import Scaler?

10 sec

`from sklearn.preprocessing import Scaler``import preprocessing``import preprocessing.scaler``from sklearn.preprocessing import StandardScaler`

## Resource credits ^