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# Building a linear regression model and testing it on some dummy data
in R

# Correlation -1 0 +1

# Scatter plot on training data
scatter.smooth(x=cars$speed, y=cars$dist, main="SpeedVSdistance")

# Correlation
cor(cars$speed, cars$dist)

# Build a linear regression model
regression_result <- lm(dist ~ speed, data=training_data)

# Prints the output of variable regression_result
print(regression_result)

# testing our testing data with a built regression model
prediction_result <- predict(regression_result, testing_data)

# accuracy: min_max_accuracy (0-1), Percent_Error
actual_prediction_values <-
data.frame(cbind(actuals=training_data$dist, predicteds=
prediction_result))

min_max_accuracy <- mean(apply(actual_prediction_values, 1, min) /
apply(actual_prediction_values, 1, max))

Percent_Error <- mean(abs((actual_prediction_values$predicteds -
actual_prediction_values$actuals)) / actual_prediction_values$actuals)
```