

The questions of this quiz are based on your work in `classifyingTrafficSigns.mlx` and your associated Classification Learner app session. We recommend that you keep the completed live script reading and the associated Classification Learner app session open as you complete this quiz.

You can submit this quiz and receive feedback as many times as you would like.

1.

How many images with the label "Do Not Enter" are in `imdsTrain`?

1 / 1 point

192

240

768

Correct

`countEachLabel(imdsTrain)`

2.

Using the default settings for the number of visual words, how many visual words are in the bag of visual words object?

1 / 1 point

500

Correct

By default, the `bagOfFeatures` function creates a bag of visual words object with 500 visual words.

Questions 3 through 5 ask about the model you trained in the Classification Learner app. If you trained multiple models, please answer the questions for the trained model you created with the highest test accuracy.

If you have not trained a model with a test accuracy of 90% (or nearly 90%), it will benefit you to return to the assignment and attempt to improve your trained models. Take advantage of the "Common Issues in Image Classification" video and the course discussion boards for guidance.

3.

What was the absolute difference (in percentage) between your model's validation accuracy and test accuracy?

1 / 1 point

You can find a model's validation accuracy even after testing by selecting the "Summary" tab for a model.

2

Correct

Your test accuracy and validation accuracy are relatively close, indicating that you avoided overfitting your model to the training data.

4.

In your trained model, which traffic sign had the highest true positive rate (TPR)?

1 / 1 point

Yield

Road Closed

Do Not Enter

End All Restrictions

Correct

Be sure to select the "True Positive Rates (TPR) False Negative Rates (FNR)" option of the confusion matrix.

5.

Use the Classification Learner app to view the ROC curves for your trained model. What is the area under the curve (AUC) for "Road Closed"?

0 / 1 point

500

Incorrect

Make sure that you select the "ROC Curve" plot option and choose the "Road Closed" positive class.

Questions 6 and 7 ask you to use the same predictor features that you used to train your model to train other models in the Classification Learner app.

6.

Using the same training predictor features you used to create your model, train a Fine KNN model and a Coarse KNN model. Which has a higher validation accuracy?

1 / 1 point

Fine KNN

Course KNN

Correct

Train these models and others in the Classification Learner App.

7.

Using the same training predictor features you used to create your model, train a Quadratic SVM model and a Fine Gaussian SVM. Which has a higher validation accuracy?

1 / 1 point

Quadratic SVM

Fine Gaussian SVM

Correct

Train these models and others in the Classification Learner App.