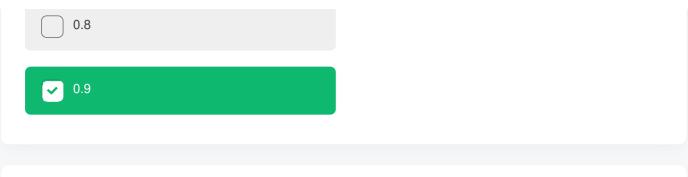
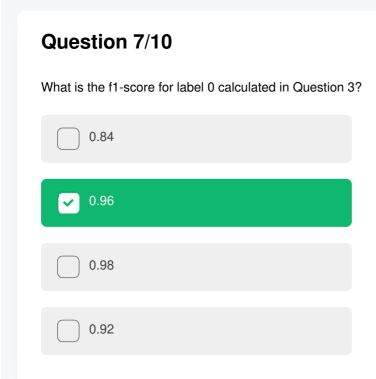
## Image Classification [Code Challenge MCQ] (Version: 1) **TEST** Correct Answer (L) Answered in 9.92 Minutes Question 1/10 After extracting a subset of the MNIST dataset, what are the shapes of X\_train and X\_test respectively? (5000, 28, 28), (1000, 28, 28) (5000, 784), (1000, 784) (28, 28, 5000), (28, 28, 1000)(5000,), (1000,) Question 2/10 After extracting the data in Question 1, print out the value of X\_train[1, 349]. What is this value? 0.7764706 0.84313726 0.0

0.10980392

Question 3/10
After extracting the data in Question 1, print out the label in y_test[50]. What is this label?
1
6
8
Question 4/10
What is the purpose of dividing the image pixel values by 255 in the get_data function?
To convert the images into grayscale
To reduce the computational complexity without having to normalise the data
To increase the image size
To normalise the pixel values between 0 and 1
Question 5/10
What is the accuracy calculated in Question 3?
0.09
0.84

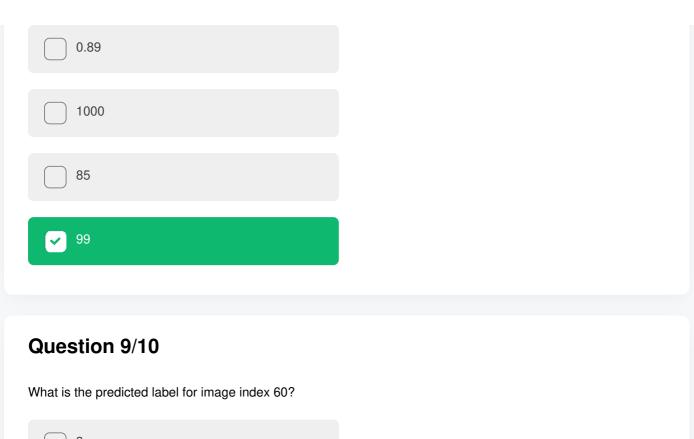


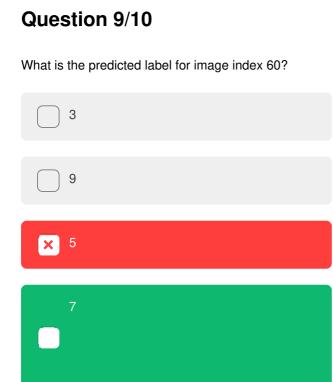
## Question 6/10 What is the precision calculated for label 6 in Question 3? 0.98 0.93 × 0.88



## Question 8/10

Based on the classification report generated, how many observations in the test set were labeled as '7'?





## Question 10/10

Which of the following is not a possible outcome of increasing the number of training images used to train the random forest model from 5,000 to 20,000?

The model's accuracy on the test set could potentially improve because of exposure to a wider set of examples.

A slightly more complex model may be needed to capture the details and variations in the larger dataset.