

## Graded Quiz: Test your Project Understanding

LATEST SUBMISSION GRADE

100%

1. How many images will this code print out?

1 / 1 point

```
1 fig, axs = plt.subplots(11,2, figsize=(32,32))
2 count = 0
3 for i in os.listdir('./training'):
4     # get the list of images in the particular class
5     train_class = os.listdir(os.path.join('training',i))
6     #plot 5 images per class
7     for j in range(2):
8         img = os.path.join('training',i,train_class[j])
9
10        img = PIL.Image.open(img)
11        axs[count][j].title.set_text(i)
12        axs[count][j].imshow(img)
13        count += 1
14
15 fig.tight_layout()
```

- ☐ 10
- ☐ 11
- ☐ 20
- ☒ 22

✓ Correct

Correct! It normalizes the pixel values between 0 and 1.

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3. Does ImageDataGenerator flip images by default?

1 / 1 point

- ☐ True
- ☒ False

✓ Correct

Correct! Keras ImageDataGenerator does not flip images by default and in-order to flip images, we have to set horizontal\_flip equal to True.

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4. After training the model, you observe training accuracy is 95% and the validation accuracy is 70%. Does it mean that the model is under-fitting?

1 / 1 point

- ☐ x and output
- ☒ x and b
- ☐ A and b
- ☐ output and A

✓ Correct

Great Job! Weight and bias are the parameters that can be optimized while training and they play a major role in the performance of the model.

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6. We have trained the model using transfer learning and we want to fine tune the model. In order to fine-tune the model, we have to lower the learning rate. Is it true?

1 / 1 point

- ☐ False
- ☒ True

✓ Correct

Correct! We lower the learning rate to fine tune the model. Otherwise it will cause very large gradient updates during training, which cause large changes in your pre-trained features.

7. Does transfer learning result in poor performance?

1 / 1 point

- ☐ True
- ☒ False

✓ Correct

Correct! This is because transfer learning helps in better weight initialization as well as better performance.

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