✓ **Congratulations! You passed!**

Grade received 100%   To pass 80% or higher

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Week 2 Quiz

Latest Submission Grade 100%

1. What is the correct syntax for the first layer in a convolutional neural network that takes an MNIST (28x28 monochrome) input?

1 / 1 point

○
```
1    model.add(tf.layers.conv2d({inputShape: [28, 28, 1], kernelSize: 3, filters: 8, acti
```

○
```
1    model.add(tf.layers.conv({inputShape: (28, 28, 1), kernelSize: 3, filters: 8, activa
```

○
```
2
```

○
```
1    model.add(tf.layers.conv({inputShape: [28, 28, 1], kernelSize: 3, filters: 8, activa
```

✓ **Correct**

2. What is the correct syntax for adding a maxPooling2D layer to a Convolutional neural network in JavaScript?

1 / 1 point

○
```
1    model.add(tf.layers.maxPooling2d({poolSize = [2, 2]}));
```

○
```
1    model.add(tf.layers.maxPooling2D({poolSize =  [2, 2]}));
```

⦿
```
1    model.add(tf.layers.maxPooling2d({poolSize: [2, 2]}));
```

○
```
1    model.add(tf.layers.maxPooling2D({poolSize: [2, 2]}));
```

✓ **Correct**

3. What is the correct syntax for compiling a model with an optimizer, loss function and metrics?

1 / 1 point

○
```
1    model.compile({  optimizer = tf.train.adam(), loss = 'categoricalCrossentropy', metr
```

○
```
1    model.compile({  optimizer: tf.train.adam(); loss: 'categoricalCrossentropy'; metric
```

```
1    tf.train.adam(), tf.loss: 'categoricalCrossentropy', tf.metrics: ['accuracy']});
```

○

⊙
```
1    model.compile({  optimizer: tf.train.adam(), loss: 'categoricalCrossentropy', metric
```

✓ Correct

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4. How do you correctly pass a set of validation data called textXs and testYs to the model.fit method in JavaScript?   **1 / 1 point**

○ Use validationData = [testXs, testYs] in the list of parameters to model.fit

○ Use validationData: [testXs, testYs] in the list of parameters to model.fit

⊙ Use validationData: [testXs, testYs] in the list of parameters sent as the third parameter to model.fit

○ Use validationData= [testXs, testYs] and pass it to the model.fit method

✓ Correct

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5. How do you get the built in callbacks visualizer with TensorFlow.js?   **1 / 1 point**

⊙ Include the tfjs-vis script, set a callback in model.fit, and set it to a const that called show.fitCallbacks() on the tfvis object

○ Include the tfjs-vis script, call show.fitCallbacks() on the tfvis object

○ Include the tfjs-vis script, set a callback in model.fit and it will work automatically

○ Include the tfjs-vis script and it will work automatically

✓ Correct

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6. If you want to see loss, validation loss, accuracy and validation accuracy on each epoch while training, how do you do this?   **1 / 1 point**

⊙ Create a list containing text values with the names of the analytics you want to capture, i.e. ['loss', 'val_loss', 'acc', 'val_acc'] and pass it to fitCallbacks() as a parameter

○ Create a list containing [1, 1, 1, 1] indicating that you want those 4 values to be true and pass it to the fitCallbacks() as a parameter

○ Create a list setting loss=true, val_loss=true, acc=true, val_acc=true, and pass it to the fitCallbacks() as a parameter

○ Create a list containing text values ["loss=true", "val_loss=true", "acc=true", "val_acc=true"] and pass it to fitCallbacks() as a parameter

✓ Correct

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7. When using a dataset like MNIST or FashionMNIST, why is it advisable to use a sprite sheet containing all the images?   **1 / 1 point**

○ It makes the data more secure

○ It keeps the data in the native JS format

○ It doesn't require any additional pre-processing

⊙ It prevents excessive multiple HTTP calls to download the data

✓ Correct

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8. What is the role of tf.tidy() in TensorFlow.js?   **1 / 1 point**

⊙ When it is executed, it cleans up all intermediate tensors allocated by a function except those returned by the function

○ It shuts down tensorflow when done, cleaning up all memory

○ When it is executed, it removes everything tensorflow from the browser memory and cache

○ When it is executed it clears memory for new tensors

✓ Correct