

✔ **Congratulations! You passed!**

Grade received **88.88%** To pass 80% or higher

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## Week 4 Quiz

Total points 9

1. What does the acronym ETL stand for?

1 / 1 point

- ☒ Extract / Transform / Load
- ☐ External / Transform / Load
- ☐ Enhance / Transfer / Load
- ☐ Extract / Transfer / Load

✔ **Correct**

2. You have a multi processor machine, containing a CPU and GPU. How would you typically distribute these for training a model?

1 / 1 point

- ☐ Use CPU and GPU for all tasks in parallel
- ☐ Use CPU for extracting and loading, and the GPU for transforming
- ☒ Use CPU for extracting, transferring and loading, and the GPU for training
- ☐ Use CPU for extracting and the GPU for transforming and loading

✔ **Correct**

3. One way to speed up ETL is to use a cache. What's the API for this called?

1 / 1 point

- ☒ tf.data.Dataset.cache()
- ☐ tf.data.Dataset.ETLCache()
- ☐ tf.data.Dataset.datacache()
- ☐ tf.data.DataCache()

✔ **Correct**

4. I have a dataset loaded using this code:

0 / 1 point

```
1 dataset = tfds.load('cats_vs_dogs', split=tfds.Split.TRAIN)
```

How would I cache it on disk?

- ☒ train\_dataset = dataset.cache()
- ☐ train\_dataset = dataset.cache(filename='cache')
- ☐ train\_dataset = dataset.cache(file='cache')
- ☐ train\_dataset = dataset.cache(cachename=file)

✗ Incorrect

5. I have a dataset loaded using this code:

1 / 1 point

```
1 dataset = tfds.load('cats_vs_dogs', split=tfds.Split.TRAIN)
```

How would I cache it in memory?

- ☐ train\_dataset = dataset.cache(cachename='memory')
- ☐ train\_dataset = dataset.memorycache()
- ☐ train\_dataset = dataset.cache\_in\_memory()
- ☒ train\_dataset = dataset.cache()

✓ Correct

6. If I create a function called 'augment' that transforms data, what code would I use to apply this after loading a dataset with

1 / 1 point

```
1 dataset = tfds.load('cats_vs_dogs', split=tfds.Split.TRAIN)
```

- ☐ augmented\_dataset = dataset.augment(dataset)
- ☐ augmented\_dataset = dataset.augment()
- ☐ augmented\_dataset = map(augment)
- ☒ augmented\_dataset = dataset.map(augment)

✓ Correct

7. If you want to parallelise the transform of a dataset across multiple cores, what's the correct call?

1 / 1 point

- ☐ s = dataset.map(augment, num\_parallel=2)
- ☐ s = dataset.map(augment, parallel\_calls=2)
- ☐ s = dataset.map(augment, 2)
- ☒ s = dataset.map(augment, num\_parallel\_calls=2)

✓ Correct

8. If you're not sure how many cores are accessible, for example, if you're running in a shared cloud environment, how can you find out how many are available to you?

1 / 1 point

- ☐ `num_cores = multiprocessing.available_cpus()`
- ☐ It's not possible
- ☒ `num_cores = multiprocessing.cpu_count()`
- ☐ `num_cores = multiprocessing.cpu.count()`

✓ Correct

9. The process of executing a custom map function over a batch of inputs is called:

1 / 1 point

- ☐ Map batching
- ☒ Vectorization
- ☐ Visualization
- ☐ Batch mapping

✓ Correct