

state\category

create a model and train it

loss = mse

```
Epoch 1/5
918/918 [.....] - 11s 12m/step - loss: 3.8225 - accuracy: 0.0783 - val_loss: 1.8425 - val_accuracy: 0.1348
Epoch 2/5
918/918 [.....] - 11s 11m/step - loss: 1.4709 - accuracy: 0.4072 - val_loss: 1.1316 - val_accuracy: 0.1348
Epoch 3/5
918/918 [.....] - 11s 12m/step - loss: 1.1511 - accuracy: 0.4054 - val_loss: 0.8088 - val_accuracy: 0.4050
Epoch 4/5
918/918 [.....] - 10s 11m/step - loss: 0.9693 - accuracy: 0.4040 - val_loss: 0.7084 - val_accuracy: 0.4093
Epoch 5/5
918/918 [.....] - 11s 11m/step - loss: 0.8634 - accuracy: 0.4039 - val_loss: 0.6757 - val_accuracy: 0.4050
 keras.callbacks.History at 0x1f825a020b
```

loss = crossentropy

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Epoch 1/5
918/918 [.....] - 11s 12m/step - loss: 0.9647 - accuracy: 0.4000 - val_loss: 0.5081 - val_accuracy: 0.4002
Epoch 2/5
918/918 [.....] - 10s 11m/step - loss: 0.4157 - accuracy: 0.4730 - val_loss: 0.5822 - val_accuracy: 0.4000
Epoch 3/5
918/918 [.....] - 10s 11m/step - loss: 0.2687 - accuracy: 0.5194 - val_loss: 0.3957 - val_accuracy: 0.4000
Epoch 4/5
918/918 [.....] - 11s 11m/step - loss: 0.2083 - accuracy: 0.5175 - val_loss: 0.2938 - val_accuracy: 0.4000
Epoch 5/5
918/918 [.....] - 11s 11m/step - loss: 0.1744 - accuracy: 0.5401 - val_loss: 0.2558 - val_accuracy: 0.5115
 keras.callbacks.History at 0x1f855081f0
```

result