```
In [1]: import torch
        from d2l import torch as d2l
In [2]: class Classifier(d2l.Module): #@save
            def validation step(self, batch):
                Y_hat = self(*batch[:-1])
                self.plot('loss', self.loss(Y_hat, batch[-1]), train=False)
                self.plot('acc', self.accuracy(Y_hat, batch[-1]), train=False)
In [3]: @d2l.add_to_class(d2l.Module) #@save
        def configure optimizers(self):
            return torch.optim.SGD(self.parameters(), lr=self.lr)
In [4]: @d2l.add_to_class(Classifier) #@save
        def accuracy(self, Y_hat, Y, averaged=True):
            Y_hat = Y_hat.reshape((-1, Y_hat.shape[-1]))
            preds = Y_hat.argmax(axis=1).type(Y.dtype)
            compare = (preds == Y.reshape(-1)).type(torch.float32)
            return compare.mean() if averaged else compare
```

Discussion: In this chapter, I implemented a classification model and created a 'classifier class' for it. The class has three methods, each playing its role by incorporating elements from what we've previously covered. However, the @d2l.add_to_class syntax still feels quite unfamiliar.

Loading [MathJax]/jax/output/CommonHTML/fonts/TeX/fontdata.js