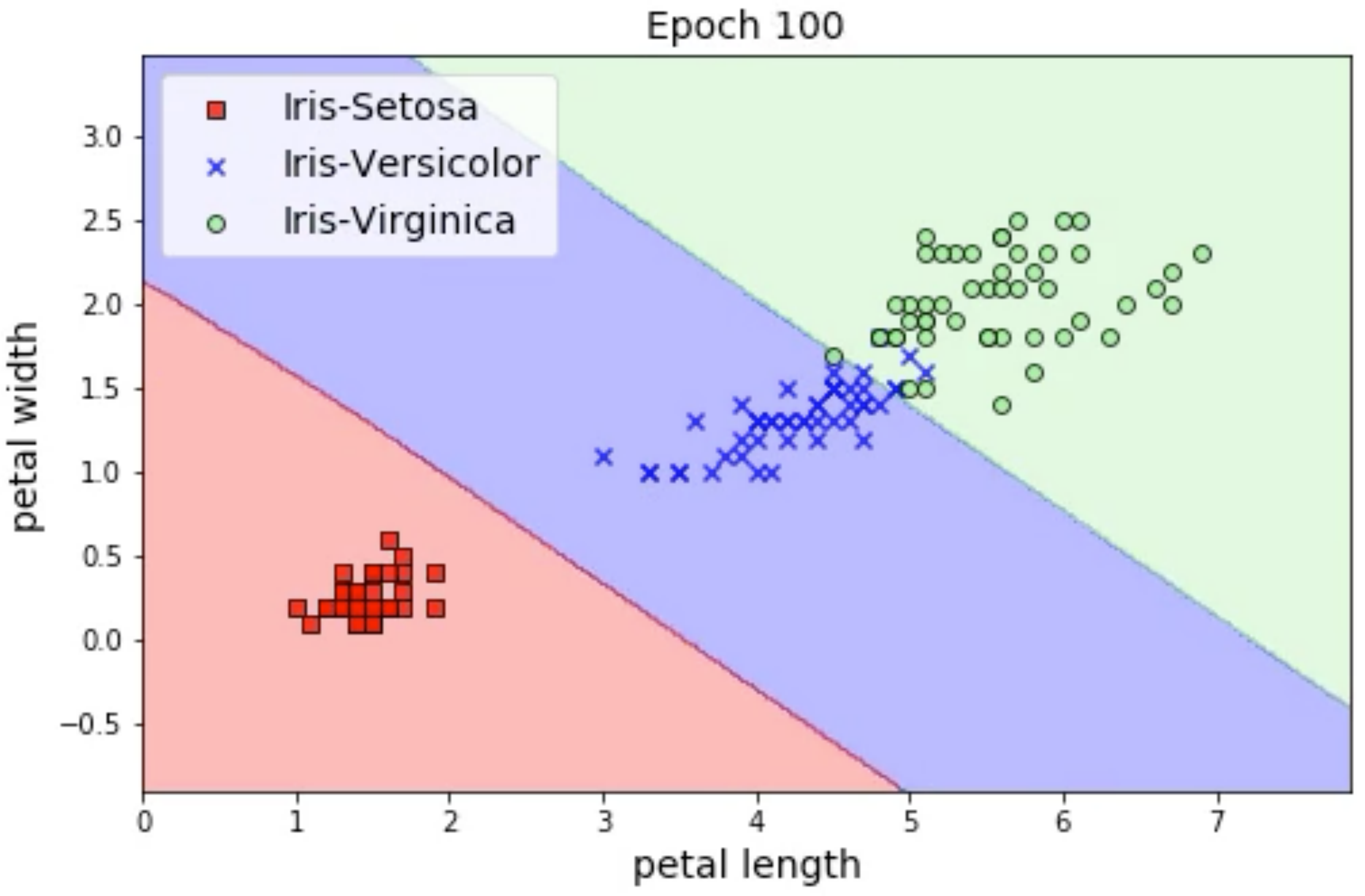
```python
def crossentropy(output, target):
    logits = output[np.arange(len(output)),target]
    entropy = - logits + np.log(np.sum(np.exp(output),axis=-1))
    return entropy

def softmax(x):
    return np.exp(x) / np.exp(x).sum(axis=-1,keepdims=True)

def grad_crossentropy(output, target):
    answers = np.zeros_like(output)
    answers[np.arange(len(output)),target] = 1
    return (- answers + softmax(output)) / output.shape[0]

class MLPreluClass(MLPrelu):
  def __init__(self, D_in, H, D_out):
    super().__init__(D_in, H, D_out)
    self.loss = crossentropy
    self.grad_loss = grad_crossentropy
```


Epoch 100
Iris-Setosa
Iris-Versicolor
Iris-Virginica
petal width
petal length
3.0
2.5
2.0
1.5
1.0
0.5
0.0
−0.5
0
1
2
3
4
5
6
7