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In [67]: from sklearn.datasets import load_iris
from sklearn.model_selection import train_test_split
from sklearn.ensemble import AdaBoostClassifier

%matplotlib notebook
```

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In [68]: X, y = load_iris(return_X_y=True)
X = X[:,1:3]
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.5, random_state=16)
```

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In [69]: abc = AdaBoostClassifier(n_estimators=100, random_state=42)
abc.fit(X_train, y_train)
```

```
Out[69]: ▼                AdaBoostClassifier
AdaBoostClassifier(n_estimators=100, random_state=42)
```

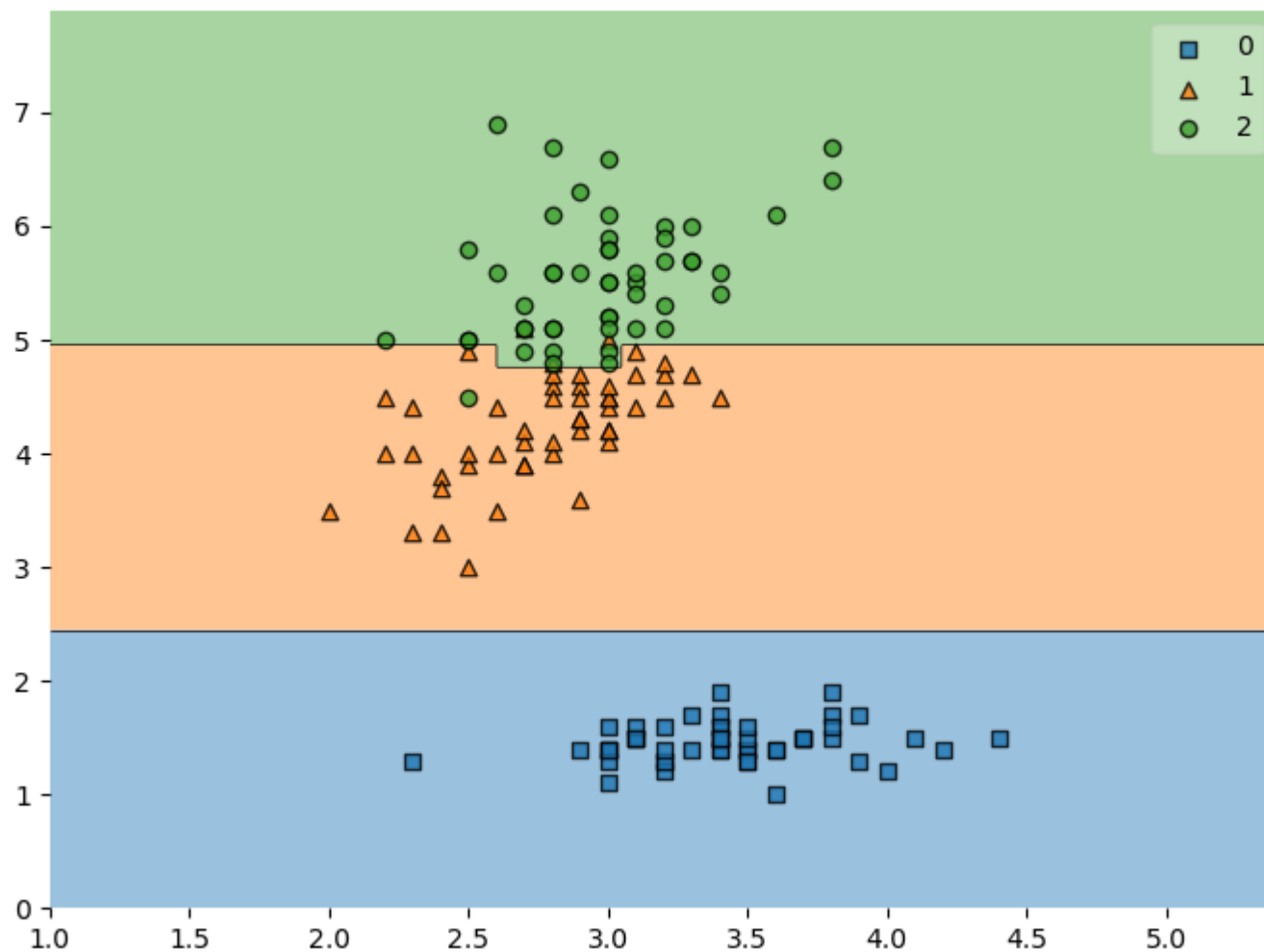
```
In [70]: y_pred = abc.predict(X_test)
```

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Out[70]: array([1, 0, 1, 2, 1, 0, 1, 0, 0, 1, 1, 2, 2, 0, 2, 1, 0, 0, 1, 1, 0, 0,
                2, 2, 1, 1, 2, 2, 2, 0, 2, 2, 0, 1, 0, 1, 0, 1, 2, 0, 2, 2, 0, 1,
                1, 2, 2, 1, 0, 2, 1, 1, 1, 1, 1, 0, 0, 2, 1, 2, 0, 2, 0, 1, 1, 2,
                0, 2, 1, 0, 0, 1, 1, 1, 0])
```

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In [72]: print(f'Number of mislabelled points = {(y_test != y_pred).sum()}/{X_test.shape[0]}')

Number of mislabelled points = 4/75
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In [73]: from mlxtend.plotting import plot_decision_regions
plot_decision_regions(X, y, clf=abc)
```



Out[73]: <AxesSubplot:>

In [ ]: