In [1]:

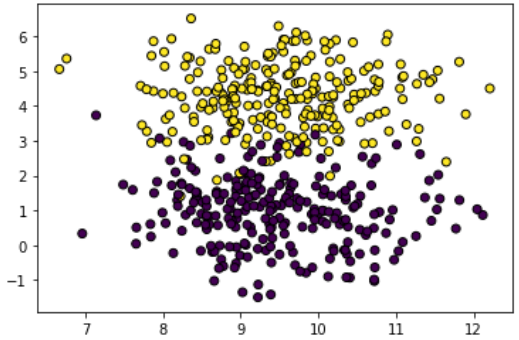
```
import matplotlib.pyplot as plt
from sklearn.datasets import make_blobs
from sklearn.preprocessing import QuantileTransformer
```

In [3]:

```
X, y = make_blobs(n_samples=500, centers=2, random_state=4)
```

In [4]:

```
plt.scatter(X[:, 0], X[:, 1], c=y, edgecolors='black')
plt.show()
```



In [5]:

```
quan = QuantileTransformer(n_quantiles=100)
quan.fit(X)

print(quan.quantiles_.shape)
```

```
(100, 2)
```

In [6]:

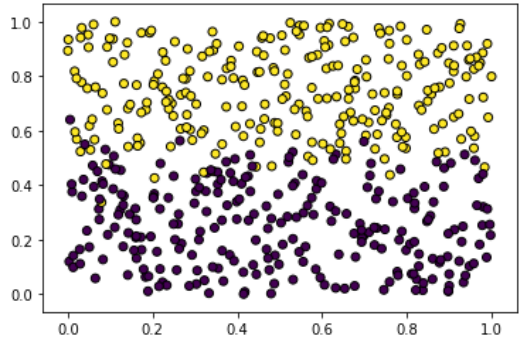
```
quan.quantiles_[:10]
```

Out[6]:

```
array([[ 6.6657781 , -1.49206421],
       [ 7.61210918, -1.01990633],
       [ 7.78824053, -0.78260893],
       [ 7.85516648, -0.63070686],
       [ 7.9626143 , -0.45347682],
       [ 8.03441051, -0.28360524],
       [ 8.11006792, -0.19981671],
       [ 8.16790251, -0.15642171],
       [ 8.23657329, -0.0964701 ],
       [ 8.27507964, -0.01707259]])
```

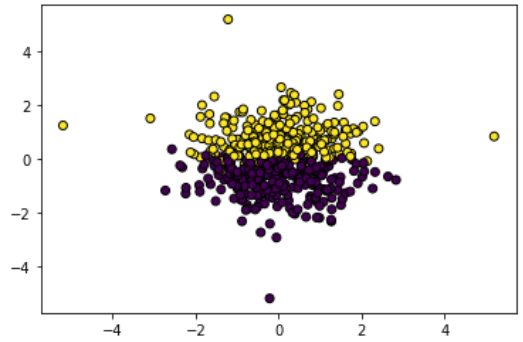
In [7]:

```
X_quan = quan.transform(X)
plt.scatter(X_quan[:, 0], X_quan[:, 1], c=y, edgecolors='black')
plt.show()
```



In [8]:

```
quan = QuantileTransformer(output_distribution='normal', n_quantiles=100)
X_quan = quan.fit_transform(X)
plt.scatter(X_quan[:, 0], X_quan[:, 1], c=y, edgecolors='black')
plt.show()
```



In [9]:

```
X_quan.mean(axis=0), X_quan.std(axis=0)
```

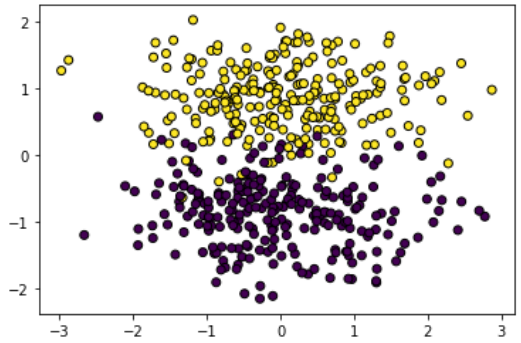
Out[9]:

```
(array([-0.00172502, -0.00134149]), array([1.0412595 , 1.03818794]))
```

In [10]:

```
from sklearn.preprocessing import StandardScaler

X_std = StandardScaler().fit_transform(X)
plt.scatter(X_std[:, 0], X_std[:, 1], c=y, edgecolors='black')
plt.show()
```



In [ ]:

```

```