In [141]:
```
from sklearn.mixture import GaussianMixture
```

In [142]:
```
gm = GaussianMixture(n_components=3, n_init=10, random_state=42)
gm.fit(X)
```

Out[142]:
```
GaussianMixture(n_components=3, n_init=10, random_state=42)
```

In [143]:
```
gm.weights_
```

Out[143]:
```
array([0.39054348, 0.2093669 , 0.40008962])
```

In [144]:
```
gm.means_
```

Out[144]:
```
array([[ 0.05224874,  0.07631976],
       [ 3.40196611,  1.05838748],
       [-1.40754214,  1.42716873]])
```

In [145]:
```
gm.covariances_
```

Out[145]:
```
array([[[ 0.6890309 ,  0.79717058],
        [ 0.79717058,  1.21367348]],

       [[ 1.14296668, -0.03114176],
        [-0.03114176,  0.9545003 ]],

       [[ 0.63496849,  0.7298512 ],
        [ 0.7298512 ,  1.16112807]]])
```