In [48]:
```
import numpy as np
import pandas as pd
from sklearn.cluster import KMeans
from sklearn.preprocessing import LabelEncoder
import matplotlib.pyplot as plt
```

In [49]:
```
df= pd.read_csv("Kmeans_dataset.csv")
df
```

Out[49]:

	X	Y
0	0.10	0.60
1	0.15	0.71
2	0.08	0.90
3	0.16	0.85
4	0.20	0.30
5	0.25	0.50
6	0.24	0.10
7	0.30	0.20

In [50]:
```
centers = np.array([[0.1,0.6],[0.3,0.2]])
```

In [51]:
```
centers
```

Out[51]:
```
array([[0.1, 0.6],
       [0.3, 0.2]])
```

In [52]:
```
model=KMeans(n_clusters=2, init=centers, n_init=1)
```

In [53]:
```
model.fit(df)
```

Out[53]:
```
KMeans(init=array([[0.1, 0.6],
       [0.3, 0.2]]), n_clusters=2, n_init=1)
```

In [54]:
```
model.labels_
```

Out[54]:
```
array([0, 0, 0, 0, 1, 0, 1, 1])
```

In [55]:
```
model.cluster_centers_
```

Out[55]:
```
array([[0.148     , 0.712     ],
       [0.24666667, 0.2       ]])
```

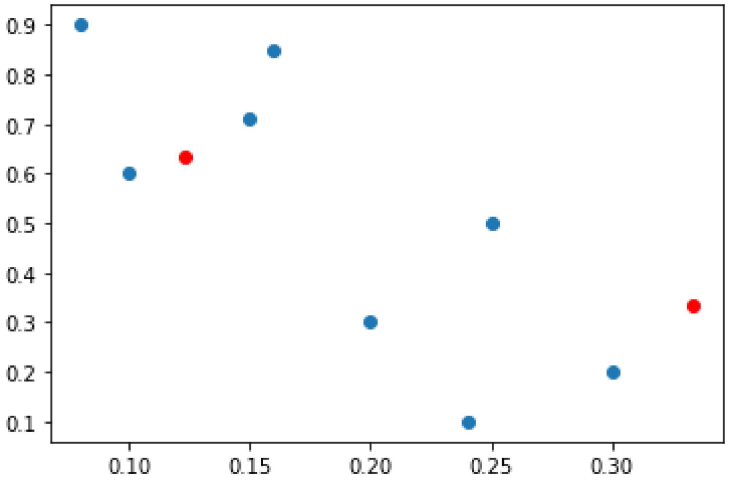
In [56]:
```
print(np.count_nonzero(model.labels_ == 1))
```

```
3
```

In [80]:
```
plt.scatter(df['X'],df['Y'])
```

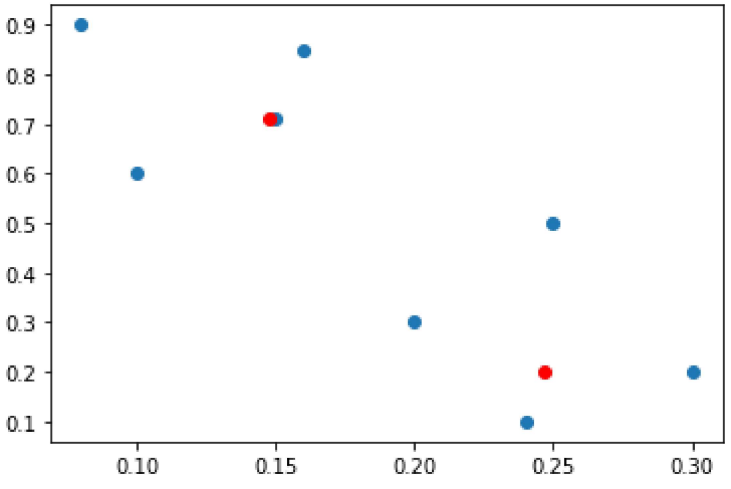
```
plt.scatter([0.123434
             ,0.3333],[0.633,0.3342],color="r")
```

Out[80]:
```
<matplotlib.collections.PathCollection at 0x1bd9fa8a410>
```



In [85]:
```
plt.scatter(df['X'],df['Y'])
plt.scatter([0.148, 0.2466666666666665],[0.712, 0.19999999999999996]
```

Out[85]:
```
<matplotlib.collections.PathCollection at 0x1bd9fc81c30>
```



In [ ]: