

## Experiment No.7

Aim:- To implement K-means clustering algorithm using python.

code:

```
import matplotlib.pyplot as plt
from sklearn.cluster import KMeans
x = [4, 5, 10, 4, 3, 11, 14, 6, 10, 12]
y = [21, 19, 24, 17, 16, 25, 24, 22, 21, 21]
plt.scatter(x, y)
plt.show()
data = list(zip(x, y))
print(data)
kmeans = KMeans(n_clusters=2)
kmeans.fit(data)
centroids = kmeans.cluster_centers_
labels = kmeans.labels_
print(centroids)
print(labels)
plt.scatter(x, y, c=kmeans.labels_)
plt.show()
```

