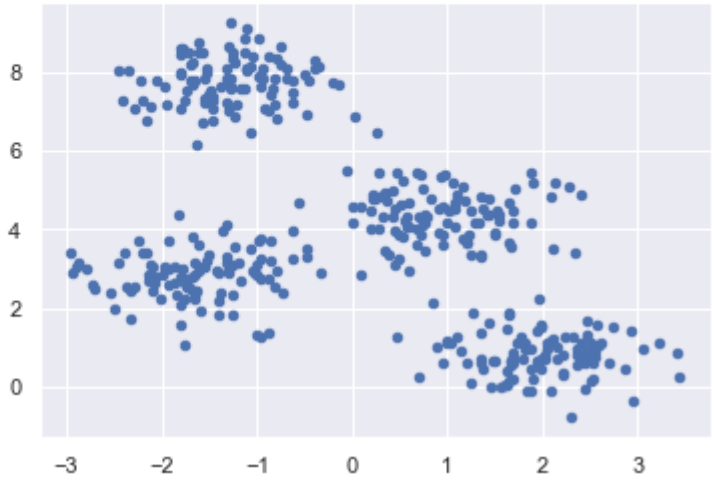
```
%matplotlib inline
import matplotlib.pyplot as plt
import seaborn as sns; sns.set()
import numpy as np
from sklearn.cluster import KMeans
```

After importing ,follow k means rules

```
from sklearn.datasets.samples_generator import make_blobs
X, y_true = make_blobs(n_samples=400, centers=4, cluster_std=0.60
```

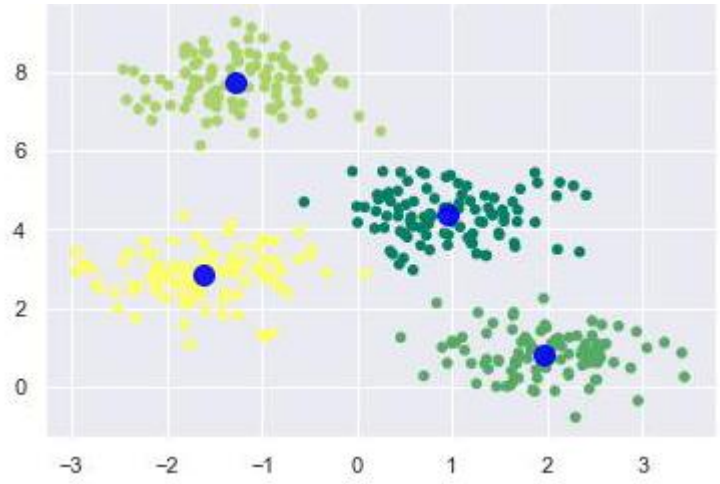
```
plt.scatter(X[:, 0], X[:, 1], s=20);
plt.show()
```



After visualizing the data now use k means techniques.

```
kmeans = KMeans(n_clusters=4)
kmeans.fit(X)
y_kmeans = kmeans.predict(X)
```

```
plt.scatter(X[:, 0], X[:, 1], c=y_kmeans, s=20, cmap='summer')
centers = kmeans.cluster_centers_
plt.scatter(centers[:, 0], centers[:, 1], c='blue', s=100, alpha=0.9);
plt.show()
```


8
6
4
2
0
−3
−2
−1
0
1
2
3