In [1]:
```
import numpy as np
import matplotlib.pyplot as plt
```

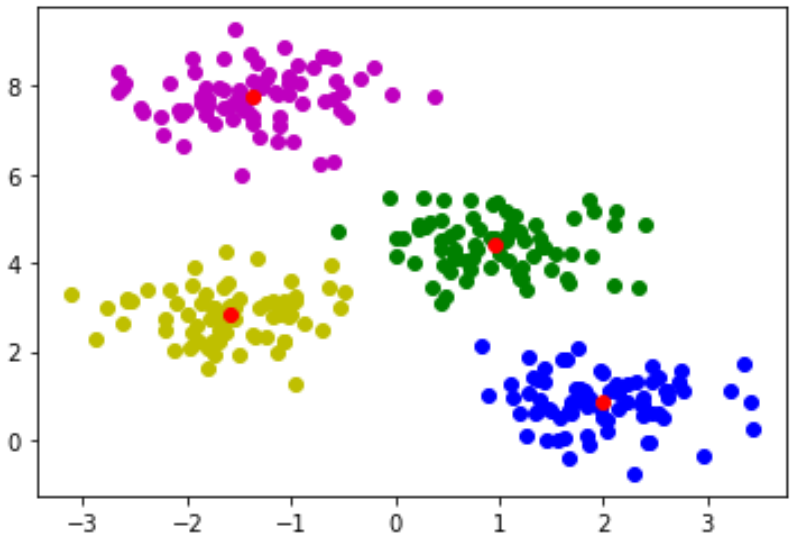
In [2]:
```
file = np.load("/home/akshay/Downloads/MAIL/Assigment_1/kmeans.npz")
data = file['data']
pred = file['pred']
centers = file['centers']

#xi,yi denotes the point in the ith cluster
x1, y1, x2, y2, x3, y3, x4, y4 = [], [], [], [], [], [], [], []
n = len(pred)
i = 0

#x0,y0 as centroids
x0, y0 = [], []
for row in centers:
    x0.append(row[0])
    y0.append(row[1])

#assigning each point to the clusters
for i in range(n):
    if (pred[i] == 0):
        x1.append(data[i][0])
        y1.append(data[i][1])
    elif (pred[i] == 1):
        x2.append(data[i][0])
        y2.append(data[i][1])
    elif (pred[i] == 2):
        x3.append(data[i][0])
        y3.append(data[i][1])
    else:
        x4.append(data[i][0])
        y4.append(data[i][1])
```

In [3]:
```
#plotting all the points
fig, ax = plt.subplots(1)
ax.plot(x1,y1,"om")
ax.plot(x2,y2,"ob")
ax.plot(x3,y3,"og")
ax.plot(x4,y4,"oy")
ax.plot(x0,y0,"or")
plt.show()
```



In [ ]: