```python
import pandas as pd
import numpy as np

from sklearn import datasets
from sklearn.mixture import GaussianMixture
from sklearn.cluster import KMeans
import sklearn.metrics as sm

import matplotlib.pyplot as plt

iris = datasets.load_iris()
x = pd.DataFrame(iris.data)
x.columns = ['Sepal_Length','Sepal_Width','Petal_Length','Petal_Width']
y = pd.DataFrame(iris.target)
y.columns = ['Targets']

colormap = np.array(['red','lime','black'])

plt.subplot(1,2,1)
plt.scatter(x.Petal_Length, x.Petal_Width, c=colormap[y.Targets], s=40)
plt.title('Real Clustering')
plt.xlabel('Petal length')
plt.ylabel('Petal Width')
model1 = KMeans(n_clusters=3)
model1.fit(x)

plt.subplot(1,2,2)
plt.scatter(x.Petal_Length, x.Petal_Width, c=colormap[model1.labels_], s=40)
plt.title('K Means Clustering')
plt.xlabel('Petal length')
plt.ylabel('Petal Width')
plt.show()

model2 = GaussianMixture(n_components=3)
model2.fit(x)
plt.subplot(1,2,1)
plt.scatter(x.Petal_Length, x.Petal_Width, c=colormap[model2.predict(x)], s=40)
plt.title('EM (GMM) Clustering')
plt.xlabel('Petal length')
plt.ylabel('Petal Width')
plt.show()

# K-Means classification
kmeans_classification = model1.labels_

# GMM classification
gmm_classification = model2.predict(x)

# Print the classification results
print("Actual Target is:\n", y.Targets)
print("K Means:\n", kmeans_classification)
print("EM (GMM):\n", gmm_classification)
```