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In [1]: # Import the required library  
import numpy as np
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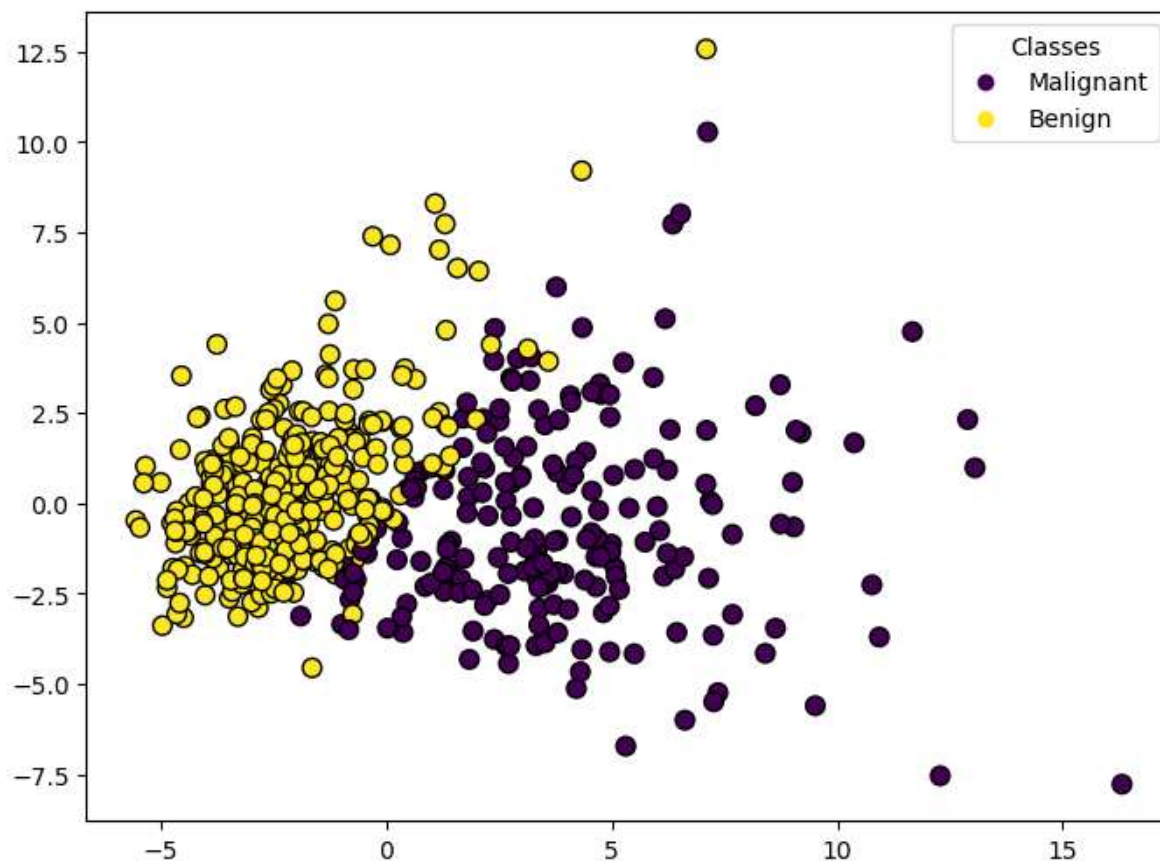
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In [2]: # Load the dataset  
from sklearn.datasets import load_breast_cancer  
cancer=load_breast_cancer()  
x=cancer.data  
y=cancer.target
```

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In [3]: # Preprocess the dataset if required & standardize the features  
from sklearn.preprocessing import StandardScaler  
v=StandardScaler()  
x_standardized=v.fit_transform(x)
```

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In [4]: # Create the model and apply PCA with 2 components  
from sklearn.decomposition import PCA  
pca=PCA(n_components=2)  
principal_components=pca.fit_transform(x_standardized)
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In [5]: data_pca=np.column_stack((principal_components,y))
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In [15]: import matplotlib.pyplot as plt
plt.figure(figsize=(8,6))
scatter = plt.scatter(data_pca[:, 0], data_pca[:, 1], c=data_pca[:, 2], cmap='r')
plt.xlabel('PRINCIPAL COMPONENT 1')
plt.ylabel('PRINCIPAL COMPONENT 2')
plt.title('PCA of Breast Cancer Dataset')
handles, labels=scatter.legend_elements()
plt.legend(handles=scatter.legend_elements()[0], labels=['Malignant', 'Benign'])
plt.show()
```



In [ ]: