In [1]:
```
from sklearn import datasets
from sklearn.manifold import TSNE
import matplotlib.pyplot as plt
```

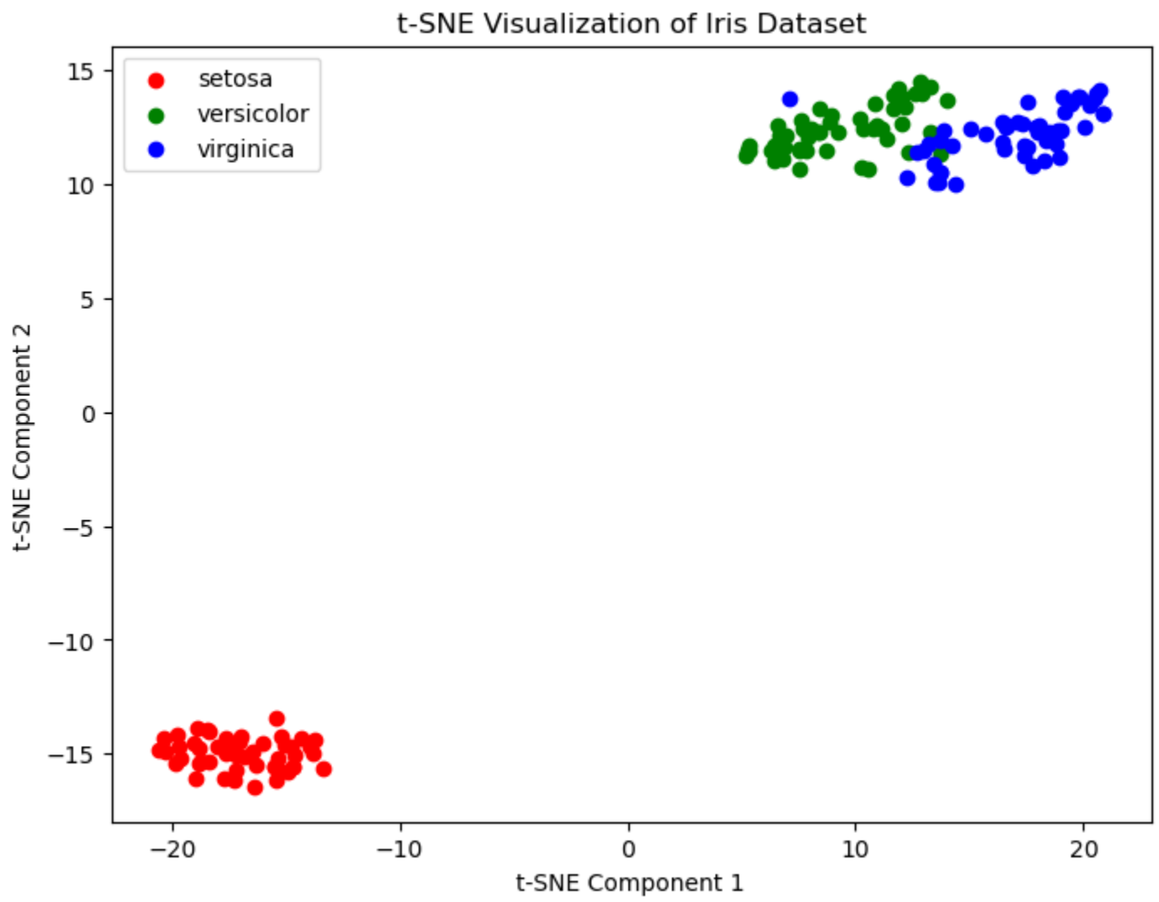
In [2]:
```
iris = datasets.load_iris()
```

In [3]:
```
X = iris.data
y = iris.target
```

In [5]:
```
tsne = TSNE(n_components=2, random_state=42)
X_tsne = tsne.fit_transform(X)
```

```
C:\Users\HP\anaconda3\lib\site-packages\sklearn\manifold\_t_sne.py:780: FutureWarning: The default initialization in TSNE will change from 'random' to 'pca' in 1.2.
  warnings.warn(
C:\Users\HP\anaconda3\lib\site-packages\sklearn\manifold\_t_sne.py:790: FutureWarning: The default learning rate in TSNE will change from 200.0 to 'auto' in 1.2.
  warnings.warn(
```

In [6]:
```
plt.figure(figsize=(8,6))
for i, c in zip(range(3), ['r', 'g', 'b']):
    plt.scatter(X_tsne[y == i, 0], X_tsne[y== i, 1], c=c, label=iris.target_names[i])
plt.xlabel('t-SNE Component 1')
plt.ylabel('t-SNE Component 2')
plt.title('t-SNE Visualization of Iris Dataset')
plt.legend()
plt.show()
```



In [ ]: