



Centurion  
UNIVERSITY  
*Shaping Lives...  
Empowering Communities...*

School: ..... Campus: .....

Academic Year: ..... Subject Name: ..... Subject Code: .....

Semester: ..... Program: ..... Branch: ..... Specialization: .....

Date: .....

## Applied and Action Learning

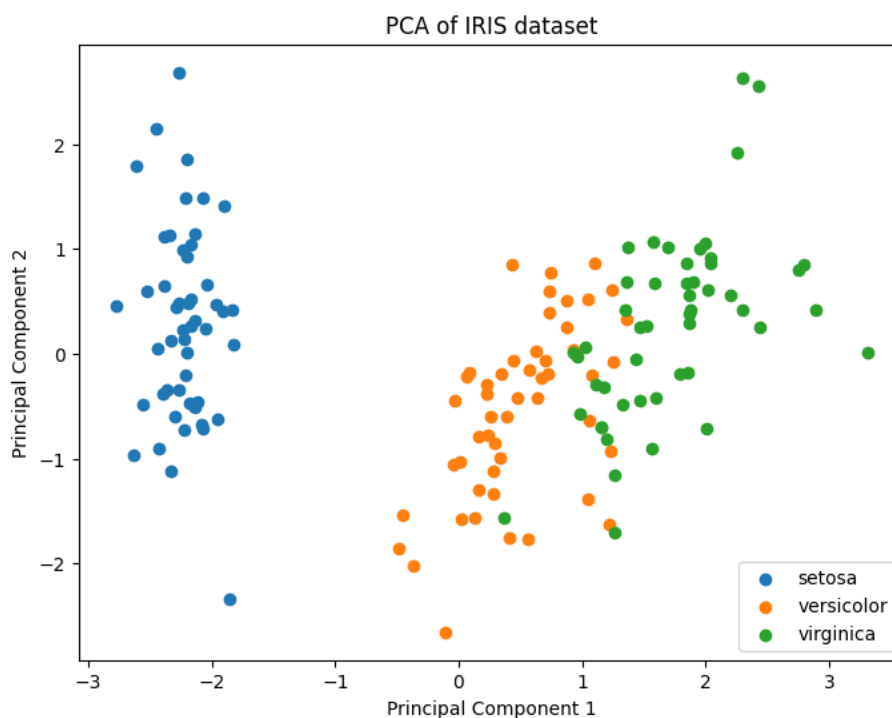
(Learning by Doing and Discovery)

Name of the Experiment :

### \* Coding Phase: Pseudo Code / Flow Chart / Algorithm

```
import pandas as pd
import matplotlib.pyplot as plt
from sklearn.datasets import load_iris
from sklearn.preprocessing import StandardScaler
from sklearn.decomposition import PCA
iris = load_iris()
X = iris.data
y = iris.target
target_names = iris.target_names
X_scaled = StandardScaler().fit_transform(X)
pca = PCA(n_components=2)
X_pca = pca.fit_transform(X_scaled)
plt.figure(figsize=(8, 6))
for i, target_name in enumerate(target_names):
    plt.scatter(X_pca[y == i, 0], X_pca[y == i, 1],
                label=target_name)
plt.title('PCA of IRIS dataset')
plt.xlabel('Principal Component 1')
plt.ylabel('Principal Component 2')
plt.legend()
plt.show()
```

## \* Implementation Phase: Final Output (no error)



## ASSESSMENT

Rubrics	Full Mark	Marks Obtained	Remarks
Concept	10		
Planning and Execution/ Practical Simulation/ Programming	10		
Result and Interpretation	10		
Record of Applied and Action Learning	10		
Viva	10		
<b>Total</b>	<b>50</b>		

**Signature of the Student:**

Name :

Regn. No. :

**Signature of the Faculty:**

Page No.....

*\*As applicable according to the experiment. Two sheets per experiment (10-20) to be used.*