Experiment 10 - DBSCAN

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1 Experiment Details

1.1 Submitted By

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```python
import numpy as np
import matplotlib.pyplot as plt
from sklearn.cluster import DBSCAN
from sklearn.datasets import make_moons
```

```python
# Generate a sample dataset
X, y = make_moons(n_samples=500, noise=0.1, random_state=42)
```

```python
# Perform DBSCAN clustering
dbscan = DBSCAN(eps=0.3, min_samples=5)
clusters = dbscan.fit_predict(X)
```

```python
# Plot the results
plt.figure(figsize=(8,6))
plt.scatter(X[:, 0], X[:, 1], c=clusters, cmap='viridis')
plt.title('DBSCAN Clustering')
plt.xlabel('Feature 1')
plt.ylabel('Feature 2')
plt.show()
```

DBSCAN Clustering