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# Clustering
kmeans = KMeans(n_clusters=5, random_state=42)
clusters = kmeans.fit_predict(features_scaled)

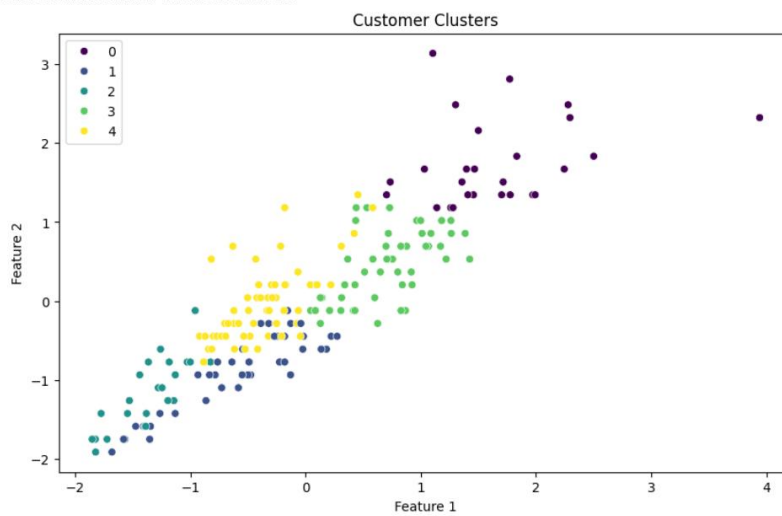
# Adding cluster labels
customer_features['Cluster'] = clusters

# Evaluating clustering
db_index = davies_bouldin_score(features_scaled, clusters)
print(f"Davies-Bouldin Index: {db_index}")

# Visualizing clusters
plt.figure(figsize=(10, 6))
sns.scatterplot(x=features_scaled[:, 0], y=features_scaled[:, 1], hue=clusters, palette='viridis')
plt.title("Customer Clusters")
plt.xlabel("Feature 1")
plt.ylabel("Feature 2")
plt.show()

```

Davies-Bouldin Index: 0.9467058109377833



1. from sklearn.preprocessing import StandardScaler

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