Machine Learning

KNNC Outlier Detection over Olivetti faces Data

CODE:

Please find the code to detect OUTLIERS committed as
KNNC_OlivettiFaceData_Task3__OutlierDetection_impl.py

- For KNNC with K=10, code is implemented to detect the outliers as per above description.
- **RESULT is generated to show number of core points, outlier points and possible outlier points.**

RESULT:

For KNN with *n_neighbors* = 10
Number of Core Points: 269
Number of Outlier Points: 5
Number of Possible Outlier Points: 126

INFERENCE/ANALYSIS:

- **The result shows that maximum images belong to core category which implies that they have more than 5 nearest neighbours belonging to the same class.**
- There are only 5 outliers in the entire dataset.
- Possible outliers are also calculated which form the remaining set of images**.**

RESOURCES USED FOR THE ASSIGNMENT:

- **Environment:**
  Anaconda, Jupyter notebook
- **Software :**
  Python
  Python libraries/modules: Pandas, Numpy, SkLearn etc