Experiment 9: Apply Ensemble learning and evaluate the prediction

Theory:

1. **Ensemble learning**

   Ensemble learning helps improve machine learning results by combining several models. This approach allows the production of better predictive performance compared to a single model. Basic idea is to learn a set of classifiers (experts) and to allow them to vote.

Implementation:

1. **sklearn.ensemble.RandomForestClassifier**

   class sklearn.ensemble.**RandomForestClassifier**(*n_estimators=100, *, criterion='gini', max_depth=None, ..*)

   Creates a random forest classifier.

About Dataset:

Dataset - Rice type classification

This is a set of data created for rice classification. In the class column, Jasmine type is recorded as 1, whereas Gonen type as 0.

Conclusion: In this way, we understood the rationale behind the ensemble learning and implemented the Random Forest algorithm on the rice classification dataset.