Advanced Software Technology - Project 2018 - Week 2

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1. The code has been updated for the given cases. The Test case names are as follows in the github Test package (ClassifierTest.java):
   - ClassifierTestwith_Case1
   - ClassifierTestwith_Case2
   - ClassifierTestwith_Case3
   - ClassifierTestwith_Case4
   - ClassifierTestwith_Case5
   - ClassifierTestwith_Case6
   - ClassifierTestwithAlgorithmData_Conventionalcase
   - ClassifierTestwithAlgorithmData_EmptySensorData
   - ClassifierTestwithAlgorithmData_Single
2. The design is in alignment with S.O.L.I.D principle of "Open for update but close for changes". The system designed implements Factory method design pattern. In this case, the code is open for updation by addition of any classifier type. For instance, in order to create a new classification methodology, creating an instance and defining the methodology will be sufficient. There is no dependency on replicating the entire process or extending the test cases. In addition, the code is closed for changes by providing sufficient abstraction to the object type created. The user is informed only the object is created for classification and will be unaware of the different classification methods used in future.
3. The testing for "Open for update" principle can be carried out in future by allowing different methods of classification. For instance, to find the least probable object output by the sensor. This task can be implemented and the user can create a factory object and use this by referring to the task type or keyword to create instance.
4. Yes, our allows commenting a few lines for removing a modality from the picture. We have followed Factory Design Pattern to implement this task. The test cases has been tabulated in the CSV document attached.

References:

1. Coding convention, Available on: https://www.oracle.com/technetwork/java/javase/documentation/codeconvtoc-136057.html , Website: Oracle, Viewed on: 01.12.2018.
2. Java Tutorials, Website: Tutorials point.
3. Factory Method Design Pattern, Available on: https://www.tutorialspoint.com/design_pattern/factory_pattern.htm , Viewed on: 07.12.2018