1. Implement and demonstrate the Find-S algorithm for finding the most specific hypothesis based on a given set of training data samples. Read the training data from a .CSV file and show the output for test cases.

2. For a given set of training data examples stored in a .CSV file, implement and demonstrate the Candidate Elimination algorithm. Output a description of the set of all hypotheses consistent with the training examples.

3. Demonstrate the following data Preprocessing operations on a suitable dataset.

 i. Data Cleaning (Remove the rows with missing values and duplicate values)

ii. Integration

iii. Transformation

4. Demonstrate the working of the Decision Tree-based ID3 algorithm. Use an appropriate data set for building the decision tree and to classify a new sample to the respective class.

5. Demonstrate the working of the Random Forest algorithm. Use an appropriate data set and visualize the test output.

6. Implement the Naive Bayesian classifier for a sample training data set stored as a .CSV file. Print the confusion matrix, accuracy, precision and recall.

7. Assuming a set of documents that need to be classified, use the Naive Bayesian Classifier model to perform this task. Calculate the accuracy, precision and recall for your data set.

8. Construct a Bayesian network considering medical data. Use this model to demonstrate the diagnosis of heart patients using standard Heart Disease data set.

9. Demonstrate the working of the Expectation-Maximization (EM) algorithm to cluster a set of data stored in a .CSV file.

10. Demonstrate the working of a Support Vector Machine (SVM) classifier for a suitable data set and plot the classification graph.