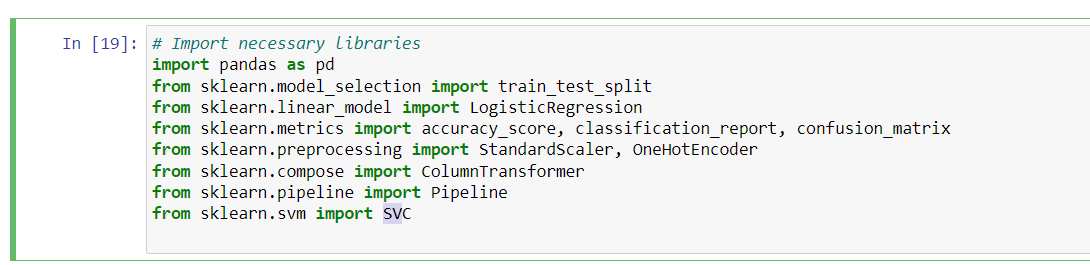
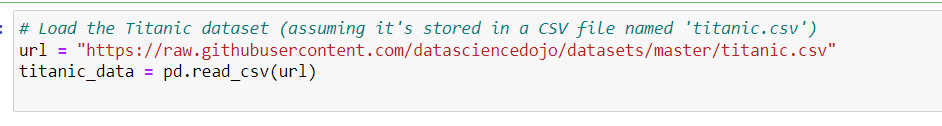
**EXPERIMENT NO: 5**

**Aim: Implement and Evaluate Classification Algorithms languages like JAVA/ python/R**

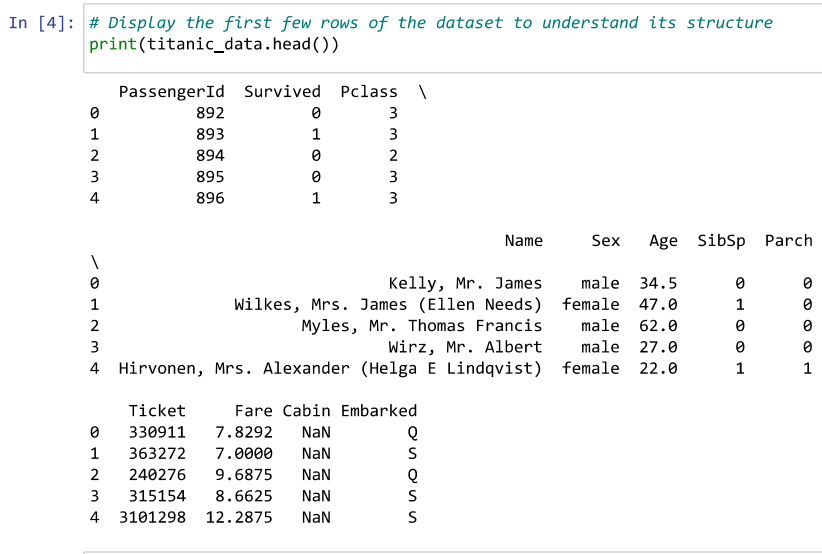
**Import Libraries:**



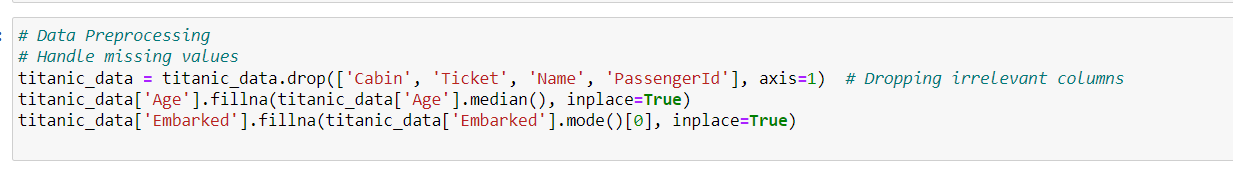
**Load the titanic dataset:**



**Display the first few rows of the dataset:**



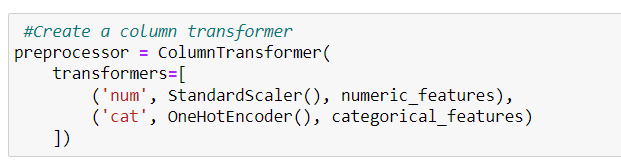
**Data Preprocessing:**



**Encode Categorical Variables:**

****

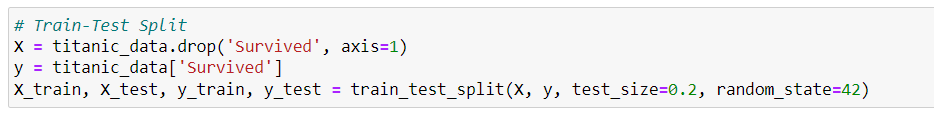
**Create a Column Transformer:**

****

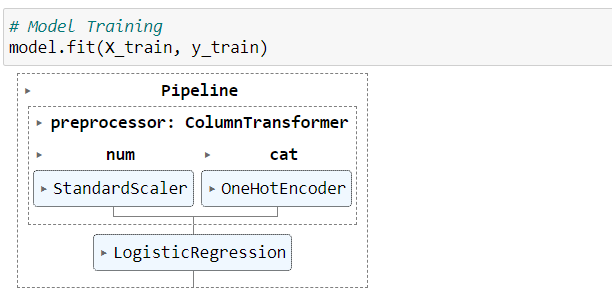
**Define the Model:**



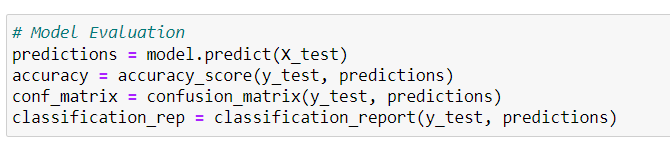
**Train-Test Split:**

****

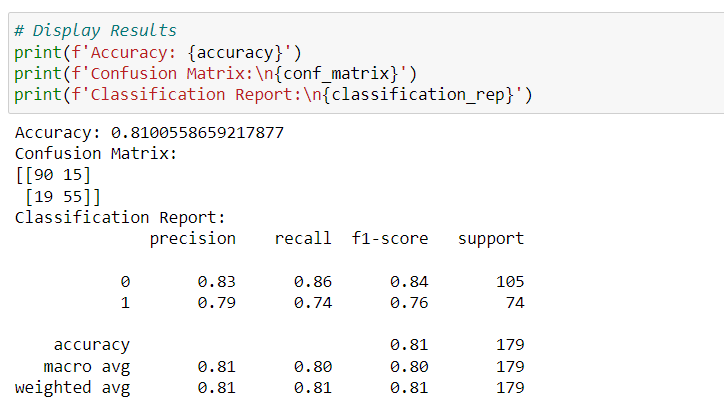
**Model Training**:

****

**Model Evaluation:**

****

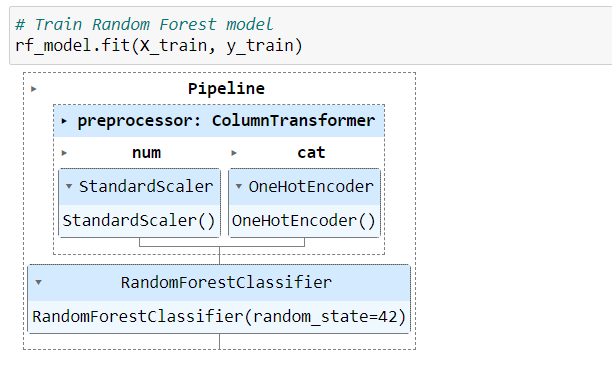
**Display Results:**

****

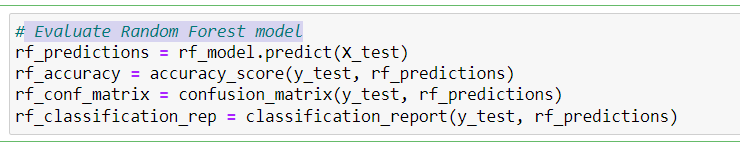
**Import and define Random Forest Model:**

****

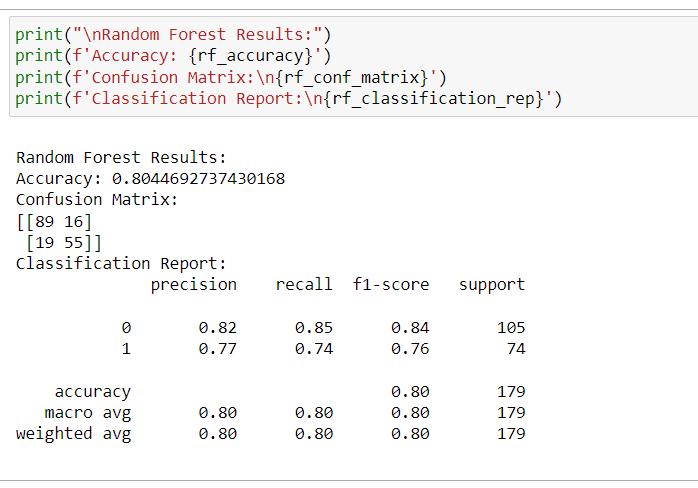
**Train Random Forest Model:**

****

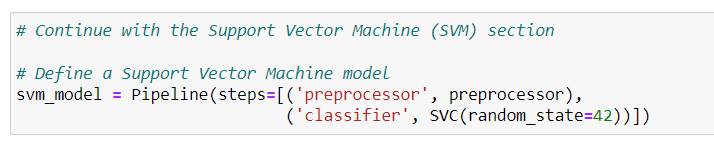
**Evaluate Random Forest model:**

****

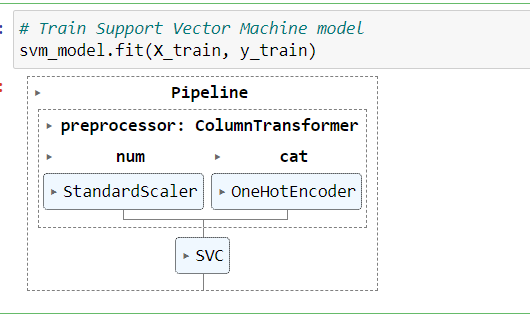
**Display Random Forest Results:**

****

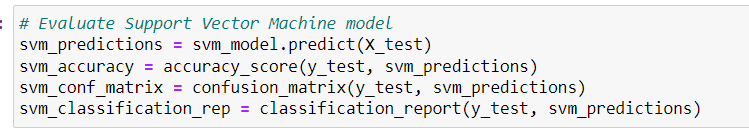
**Define a Support Vector Machine model:**

****

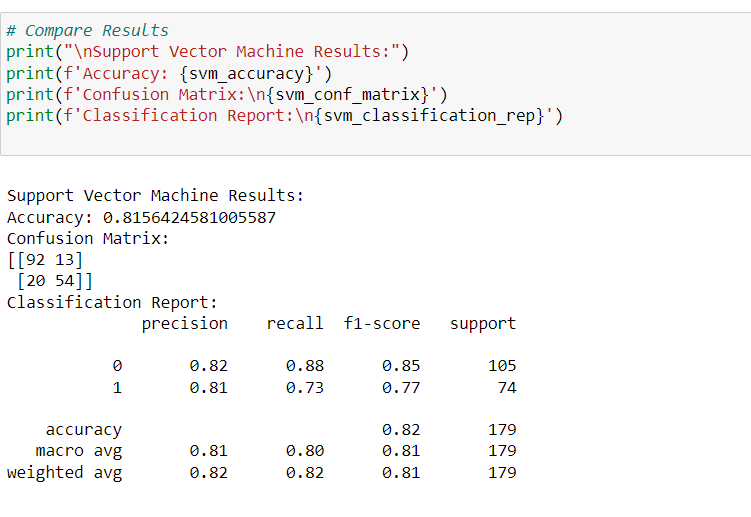
**Train Support Vector Machine model:**

****

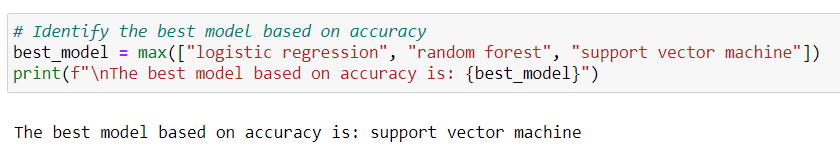
**Evaluate support vector machine model:**

****

**Display Support Vector Machine Results:**

****

**Identify the best model based on accuracy:**

****

**Conclusion:**

Hence, we have successfully studied to implement and Evaluate Classification Algorithms languages like JAVA/ python/R