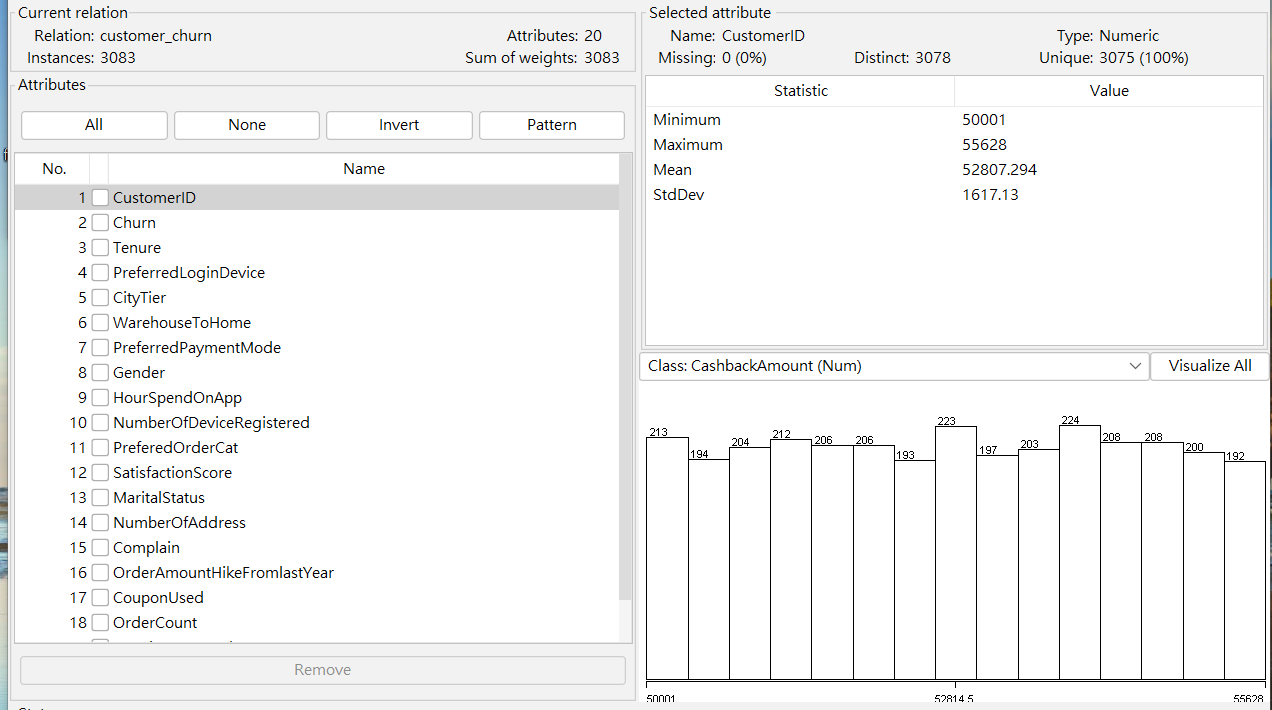
1. 載入 customer\_churn.csv，列出資料筆數、屬性數量以及每個欄位的空值個數 (5%)

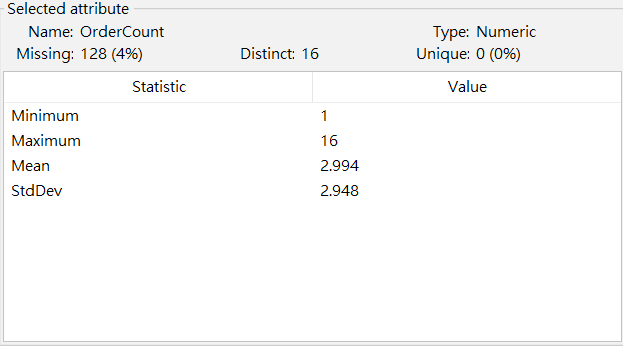
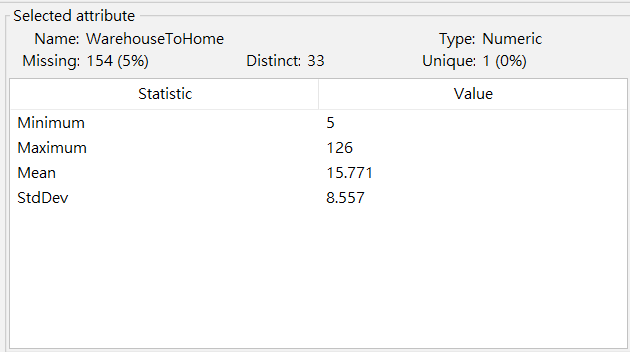
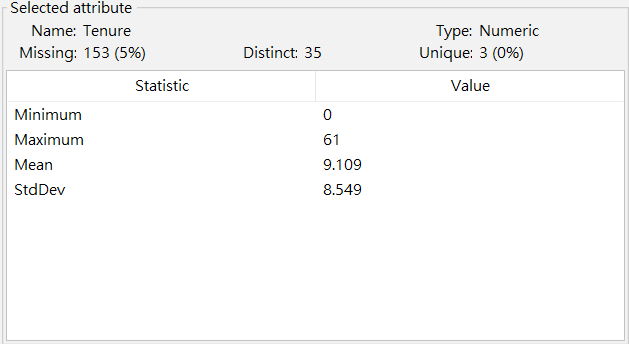
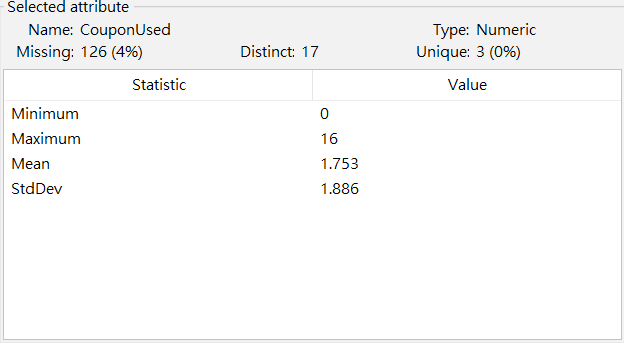
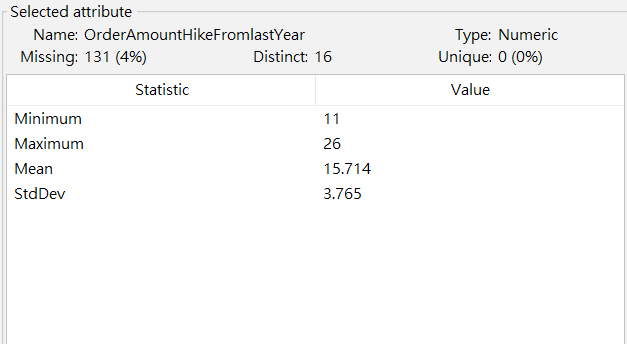
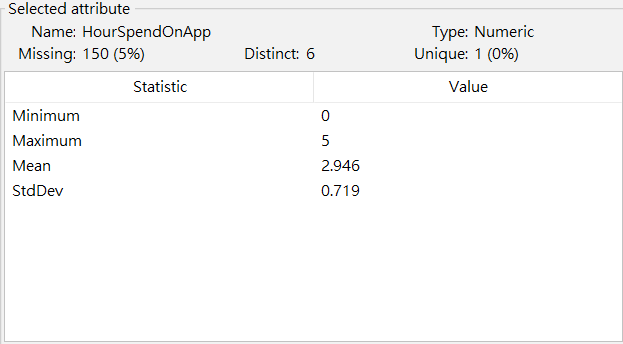
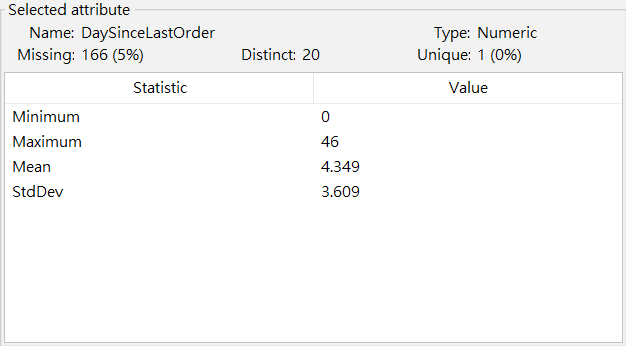
屬性數量



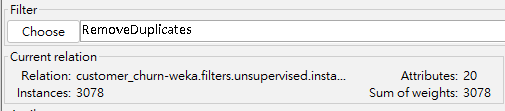
資料筆數

以下列出含空值的欄位:

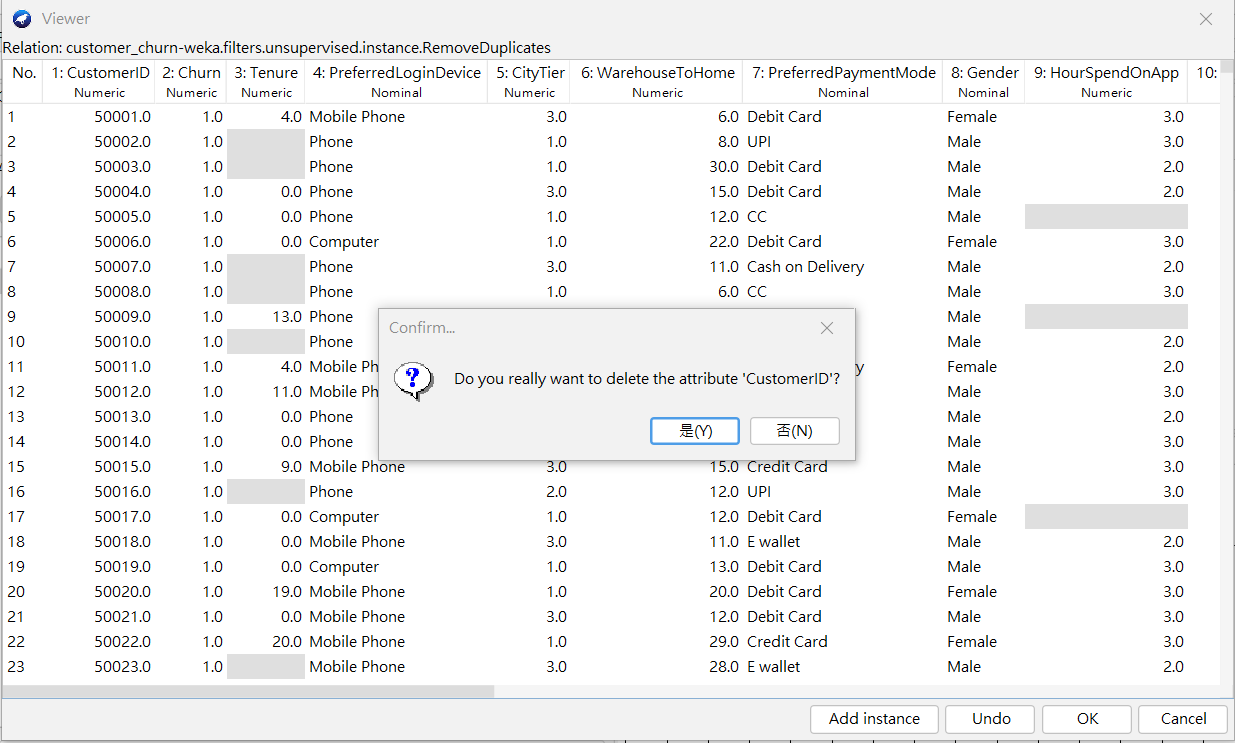
空值個數



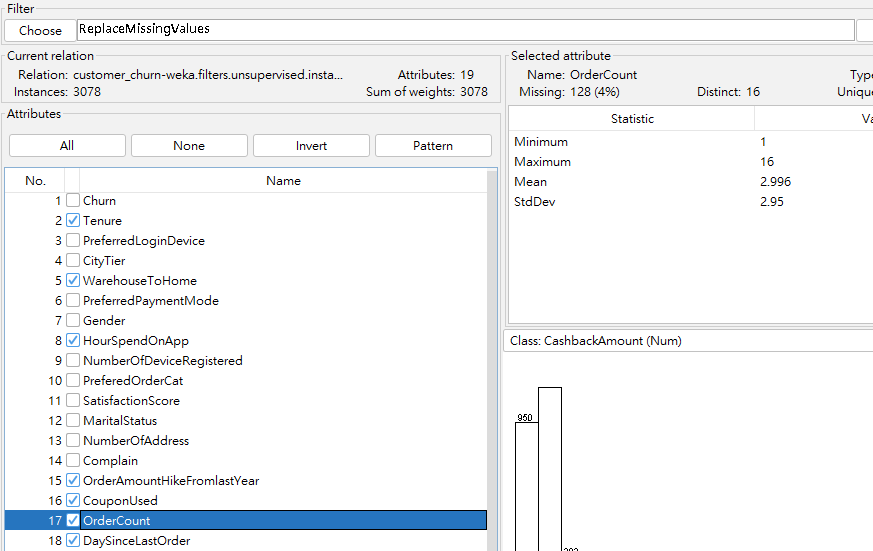
1. 請刪除重覆多餘的資料 (僅保留一筆)，並列出剩餘的資料筆數 (5%)



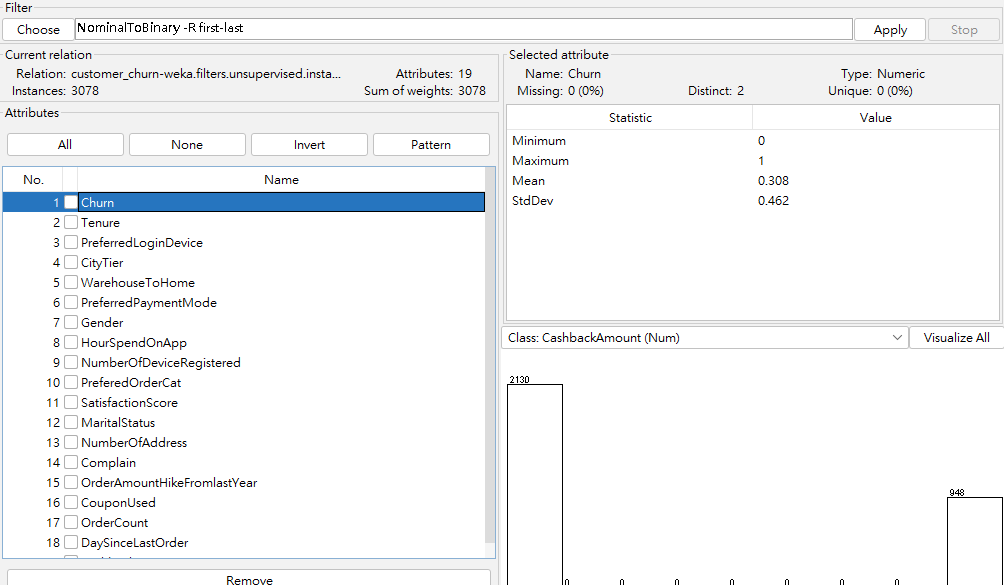
1. 資料前處理 (5%)
   1. 刪除CustomerID



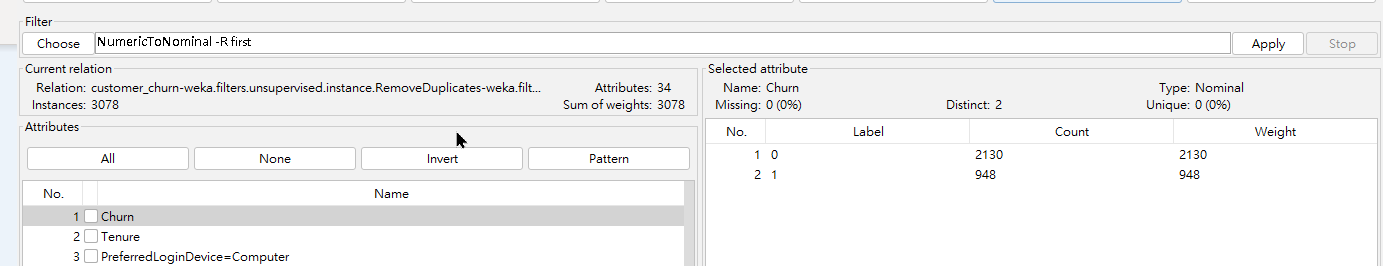
* 1. 清理空值



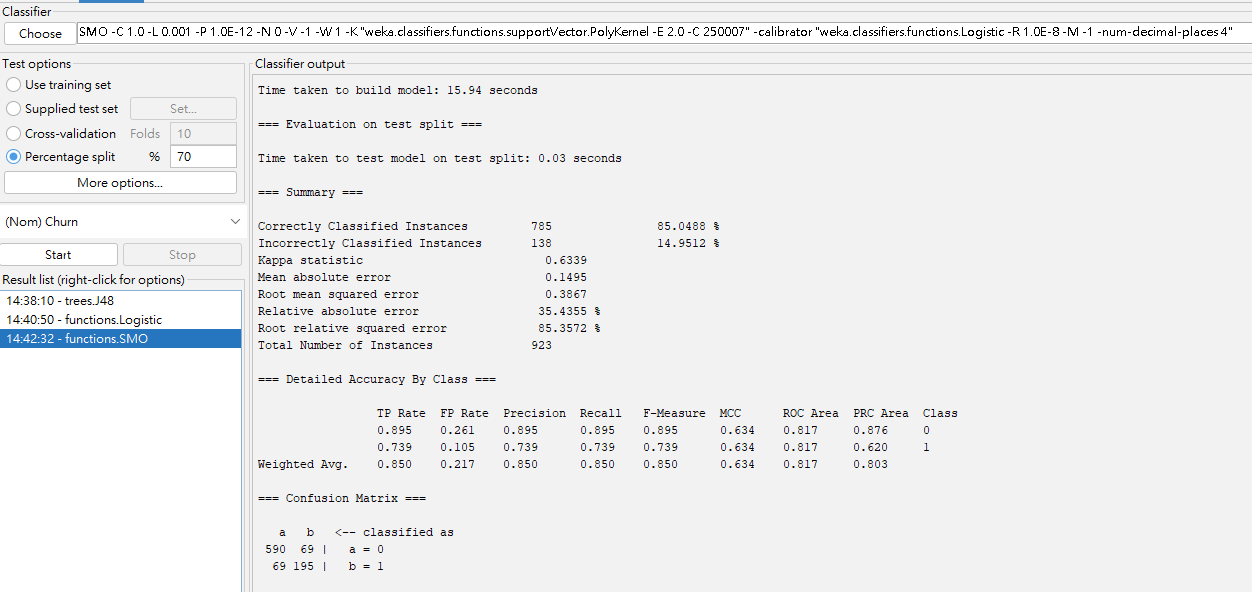
* 1. feature encoding



* 1. numeric to nominal

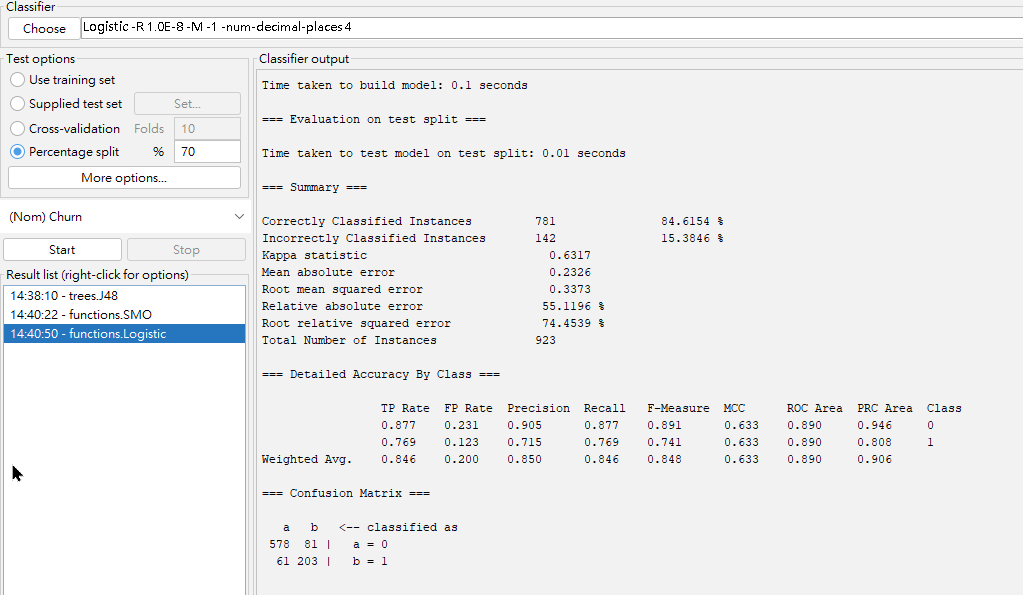


1. 訓練、測試 SVM、Logistic Regression、Decision Tree 模型，請以 Accuracy 評估 模型表現 (10%)
   1. SVM



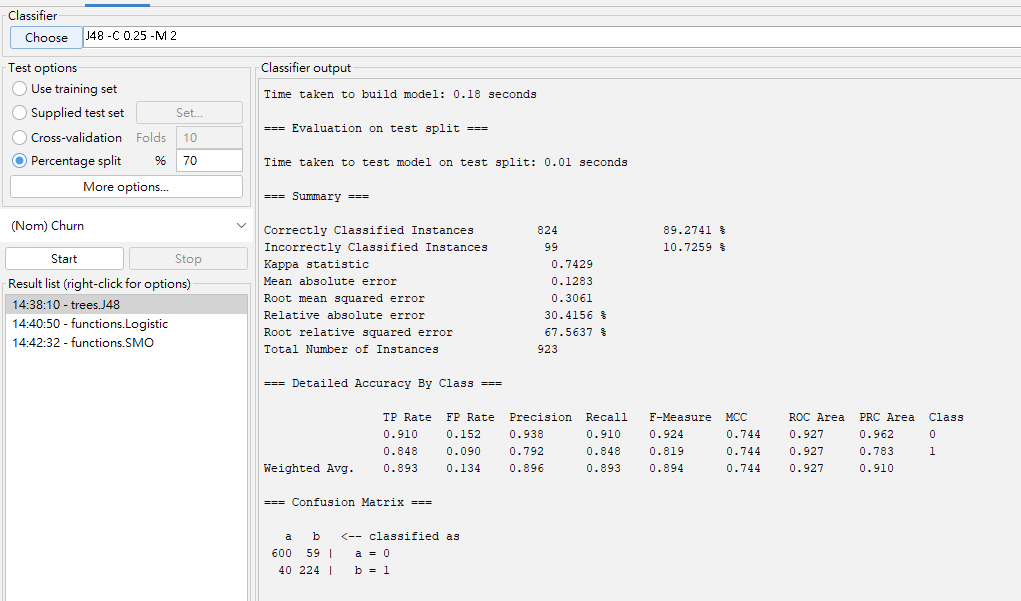
Accuracy

* 1. Logistic Regression



Accuracy

* 1. Decision Tree



Accuracy