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| **Tester** | Tah Wen Zhong |
| **Test type** | Unit |
| **Component** | Random Forest |
| **Number of test suites** | 1 |
| **Number of test cases** | 7 |
| **Status** | Complete |
| **Test file** | random\_forest\_test.py |
| **Date of completion** | 28/8/2021 |

Testing the functionality of Random Forest

Rows highlighted yellow indicate test cases that have found issues present in the UI

# Test suite 1 (28/8/2021)

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| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 1 | Check the returned model type | Create a Random Forest model and compare with the returned model  (test1.arff.txt) | Model type are both the same (Random Forest) | Model type are both the same  (Random Forest) | Pass |
| 2 | Check fitted model usability with test data | Perform predict on normal test data | Prediction successful | Prediction successful | Pass |
| 3 | Check fitted model usability with invalid test data | Perform predict on invalid test data | Prediction fails, error raised | Prediction fails, error raised | Pass |
| 4 | Check default number of estimators | Model creation with no additional arguments | Model fit successfully with 108 estimators | Model fit successfully with 108 estimators | Pass |
| 5 | Check number of estimators argument correctly passed | Model creation with 64 estimators  (args = [64]) | Model fit successfully with 64 estimators | Model fit successfully with 64 estimators | Pass |
| 6 | Check prediction functionality with multiple test data | Model prediction with test data of size 27 | Prediction array contains 27 results | Prediction array contains 27 results | Pass |
| 7 | Test with actual dataset | test2.arff.txt  (KC dataset) | Model fits and predicts successfully | Model fits and predicts successfully | Pass |

# Rationale (optional)

None.

# Results

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| **Screenshot 1 (Test file)** |
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| **Screenshot 2 (Test suite 1 output)** |
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