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| **Tester** | Ethan Hor Sheng Jian |
| **Test type** | Unit |
| **Component** | Multi-layer Perceptron Model |
| **Number of test suites** | 1 |
| **Number of test cases** | 4 |
| **Status** | Complete |
| **Test file** | Multi\_Layer\_Perceptron.py |
| **Date of completion** | 12/9/2021 |

Testing the functionality of the Multi-layer Perceptron Model

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

# Test suite 1 (12/9/2021)

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| Test case ID | Test case description | Test data/setup | Expected Result | Actual Result | Pass/Fail |
| 1 | Type test for when the model has been trained with fit() | Create an MLP model, and then fit it using dummy data. Then, its type is checked against the base MLP model type | Both the fitted model and the base model are the same type | Both the fitted model and the base model are the same type | Pass |
| 2 | Empty data test for the algorithm that creates the model | Pass in an empty list into the function that is responsible for creating the MLP model | IndexError occurs | IndexError occurs | Pass |
| 3 | Testing the functionality of the fit() function of the prediction model | Create and fit an MLP model with dummy data. Then, attempt to use the model to predict data that is of a different size | ValueError occurs | ValueError occurs | Pass |
| 4 | Basic test of the Multi-layer Perceptron Model | Create and fit an MLP model with the text file CM1.arff.txt. Then use it to predict the test data from that file. | Accuracy score >= 0.75 | Accuracy score = 0.8182 | Pass |

# Rationale (optional)

None.

# Results

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