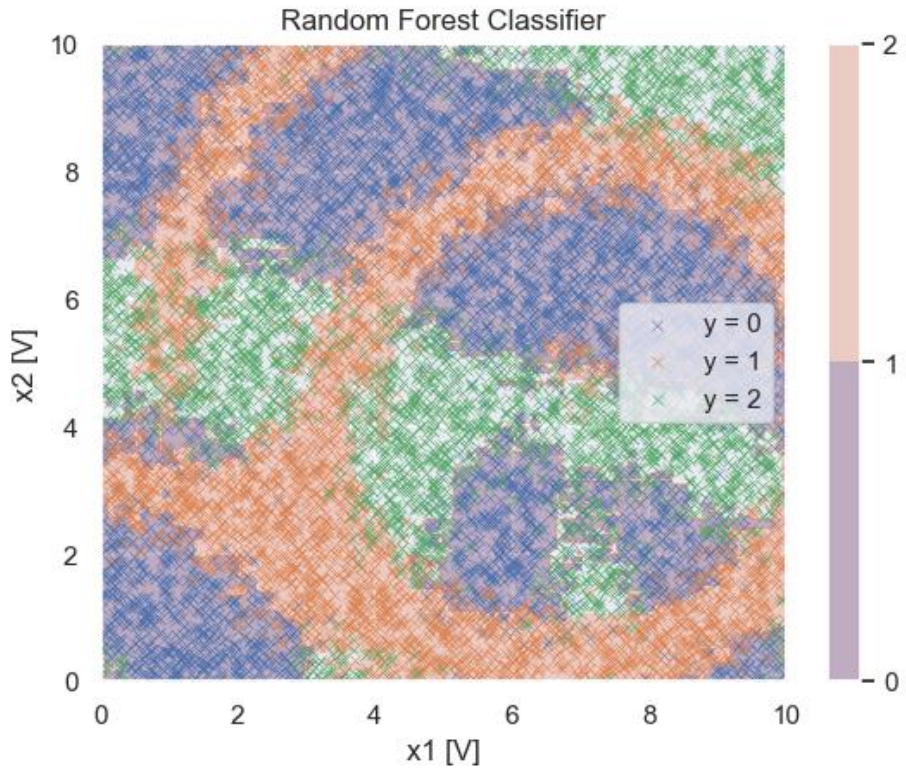
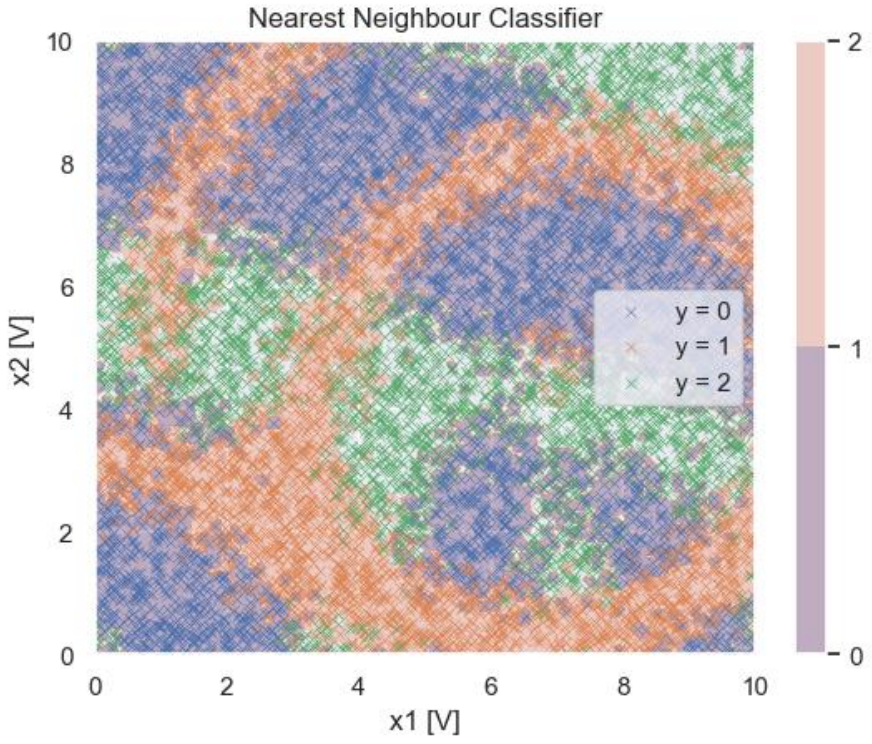
ae1220

A) [3.19V, 1.91V], [7.20V, 7.71V], [2.89V, 6.40V]

B)



C)



D.1) The nearest neighbour classifier performs best as it led to near identical classification as the random forest one, with lower complexity (less compute).

D.2) Train a neural network where the output layer nodes correspond to the predicted voltages of y1 and y2.

D.3) Yes but it would have less physical meaning than a non-parametric method as the classes wouldn’t be immediately obvious from the output voltages.