

```
1  # 10tests.py
2
3  # Aideen McLoughlin - 17346123
4
5  import pandas as pd
6  import numpy as np
7  from implementation_from_scratch import *
8  from weka_implementation import *
9  import weka.core.jvm as jvm
10 # Define a range of train/test split proportions
11 proportions = [0.05, 0.15, 0.25, 0.35, 0.45, 0.55, 0.65, 0.75, 0.85, 0.95]
12
13 jvm.start()
14
15 # For each proportion
16 for split in proportions:
17     # Read in the data
18     data = pd.read_csv('beer.csv')
19
20     # declare Queue for Tree output storage
21     Q = Queue()
22     # Create tree
23     createTree(data, split, mp.Event(), Q)
24
25     # Get the tree output
26     queue_data = Q.get()
27     root_node = queue_data[0]
28     test_data = queue_data[1]
29
30     # Get the accuracy of the tree and test it
31     python_accuracy = test_tree(root_node, test_data, split)
32
33     # Build and test the weka tree
34     weka_accuracy, weka_time_to_build = build_weka(split)
35
36 jvm.stop()
```