HFUS Submission

Working Step:

1. Imported the required libraries, Tensorflow Federated was used to perform most of the tasks related to Federated Learning
2. Loaded csv files (preprocessed)
3. Inserted column names on the loaded dataset according to the README.txt
4. Dropped the null class from the label column as it was not the target for classification
5. Split the dataset into Train, Test, and Validation, only client number 1 – 8 were used for Train and Test dataset as the assignment only requires 8 federated members, client number 9 – 10 were used for Validation dataset instead
6. Created federated data that was compatible with Tensorflow Federated library
7. Created Neural Network architecture using Keras
8. Created Federated Model based on the architecture created using Keras
9. Created Federated Averaging Process using Tensorflow Federated
10. Conducted simulation to train Federated Model locally for each client
11. Evaluated model's metrics on Test and Validation dataset