**Decision Tree Assignment**

Q-1: What is Pruning in Decision Trees? Why is it important? (2+2)M.

A: Pruning is a technique in machine learning and search algorithms that reduces the size of decision trees by removing sections of the tree that provide little power to classify instances. Pruning reduces the complexity of the final classifier, and hence improves predictive accuracy by the reduction of overfitting.

Q-2: The given dataset of size n = 400 shows Social\_Network\_Ads classification ML Problem. The task is to predict if the product was purchased or not based on certain features given. The task is to fit Decision Tree Classifier and find the evaluation metrics of this classifier. 5M

A: Attached is Dataset and Python Script.