LAB-7

Random Forest Algorithm

Step 1:- Create Data subsets
→ Randomly sample from the original dataset to create multiple new training sets
→ Each dataset has same size.

Step 2:- Build multiple decision trees
→ For each ~~to~~ dataset a decision tree is constructed
→ The tree is grown recursively splitting the data

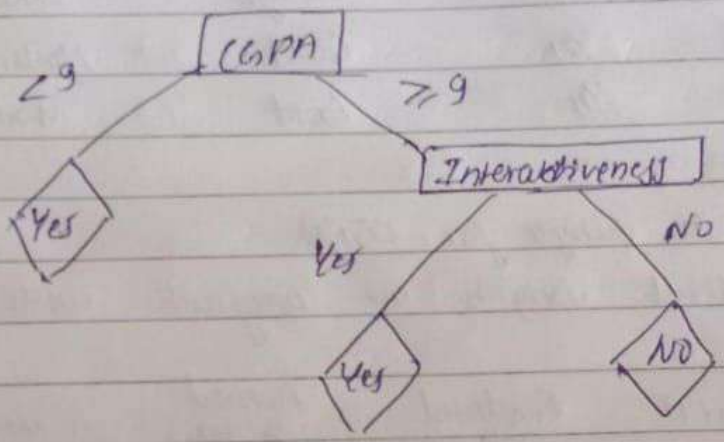
Step 3:- Make predictions of each tree
→ Once the trees are trained make predictions based on data given
→ For classification each tree outputs a class label and class with most vote becomes the prediction of random forest
→ For regression each tree output numerical value final value is the average of individual tree predictions

Step 4:- Aggregate results
→ For classification class predicted most trees is selected as final prediction
→ For regression all outputs from trees are averaged to get final output

Ok

Draw decision tree considering CGPA as root node

SNo	CGPA	Interactiveness	Communication	Practical knowledge	Job offer
1	≥9	Yes	Good	Good	Yes
2	<9	No	Moderate	Good	Yes
3	≥9	No	Moderate	Average	No
4	≥9	No	Moderate	Average	No
5	≥9	Yes	Moderate	Good	Yes



Draw decision tree considering interactiveness as root node