Step 1:

Accuracy of weak learner = 0.5 + gamma

Gamma will be given

FIND Beta = (0.5 + Gamma) / (0.5 - Gamma)

Init All point weights w as 1

Step 2:

Find predictions for each decision tree on the weighted points = h

Find loss for each => |(predicted value – true pred)| / 2 => For classif will be 0 or 1

Update Gamma => Gamma = 0.5 – (1/sum of w of all pts) . (sum(w\_i . loss\_i))

Update Beta as Beta = (0.5 + Gamma) / (0.5 - Gamma)

Update weight of each point as

W = w . (beta ^ (loss of that point))

As loss = 0 or 1, if correct no update, if wrong classif, update by w = w(beta)

Return to step 2

Stop when u reach T classifiers

Final Output

O(x) = sign(sum\_t(log(Beta\_t)h\_t(x)))