**1a: Manually calculate prediction using the Naive Bayes Model and K nearest neighbor for the test example you are assigned**

The below image is the Naive Baye Model for the “A gentle reminder about the team's presentation tomorrow”-->[0,0,1,0,1]

A white paper with black writing on it

Description automatically generated

P(Ham|E) .P(Ham) =0.075 is greater than the P(Spam|E). P(Spam)=0.0015   
So the message A gentle reminder about the team's presentation tomorrow is classified ad “Ham”

**1(b)The below images are the K nearest neighbor for A gentle reminder about the team's presentation tomorrow where K=3.**

A paper with math equations

Description automatically generated

A paper with math equations

Description automatically generatedA hand holding a piece of paper with math equations

Description automatically generated

The 3NN for  “A gentle reminder about the team's presentation tomorrow” are listed below:

“A reminder for tomorrow's team-building exercise.”

“The reminder for project deadlines is attached.”

“Reminder: Year-end team gathering is on the 20th”

All three nearest neighbors are classified as “Ham”. Therefore, the predicted classification for the test message “A gentle reminder about the team's presentation tomorrow” is also “Ham”.