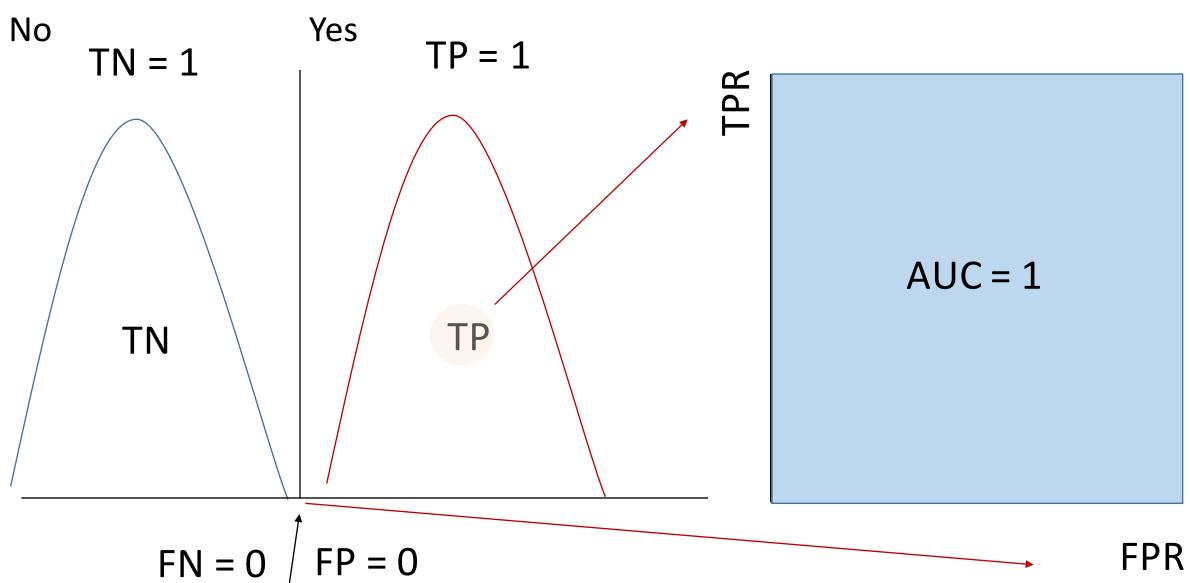
Is this patient going to have disease or not? Can we approve this person's loan or not?

The answer will be YES or NO

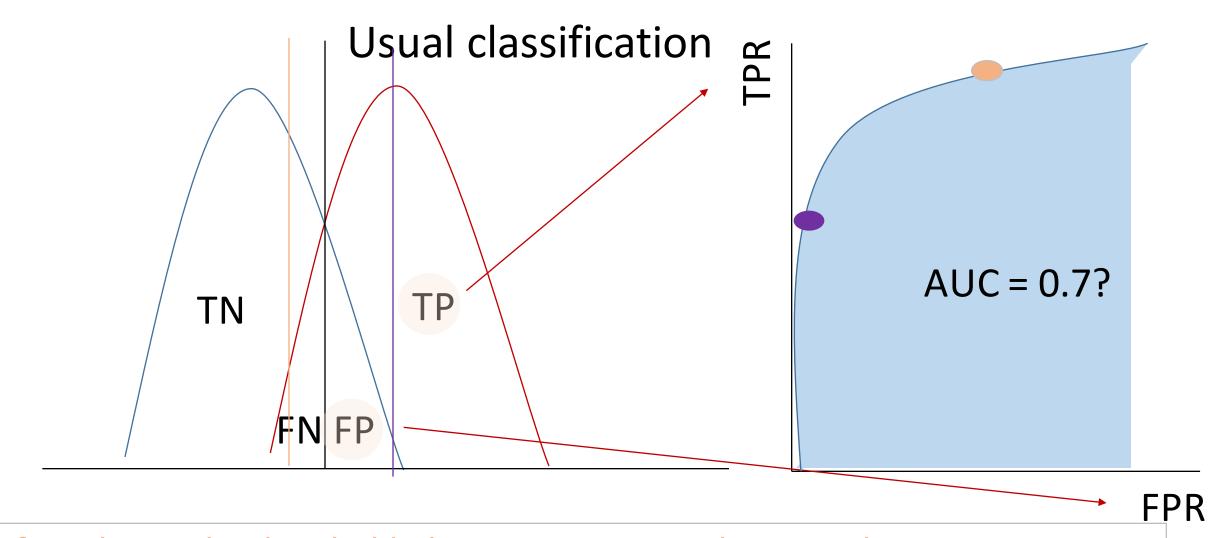
For any classification, we need to validate whether the prediction was correct. For this, we need to look at the Receiver Operator Curve (ROC) and Area Under the Curve (AUC)

## Ideal classification



threshold

**FPR** 



If you lower the threshold, then TPR increases, but FPR also increases (e.g., wrongly detect the disease when there is no disease in reality)

If you make it conservative, then FPR is low, but you may not detect the TP correctly (e.g., miss the disease diagnosis when there is disease in reality)