

I ILLINOIS

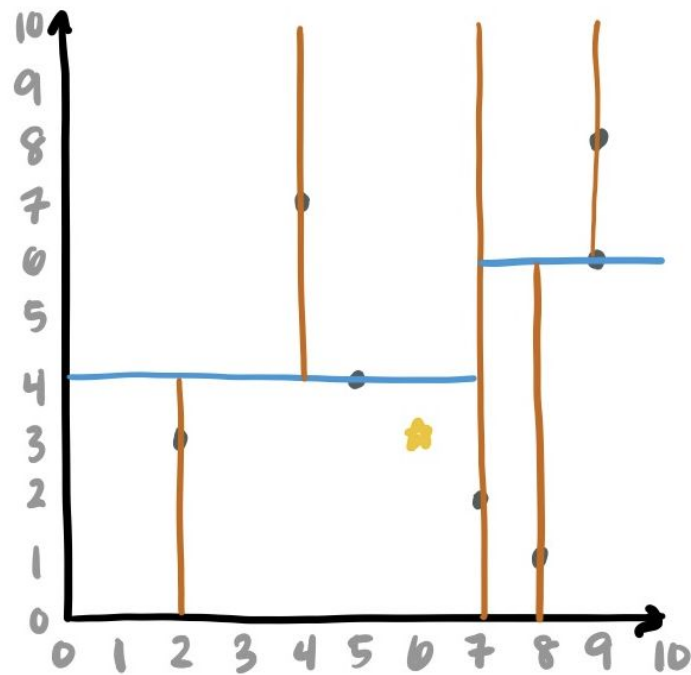
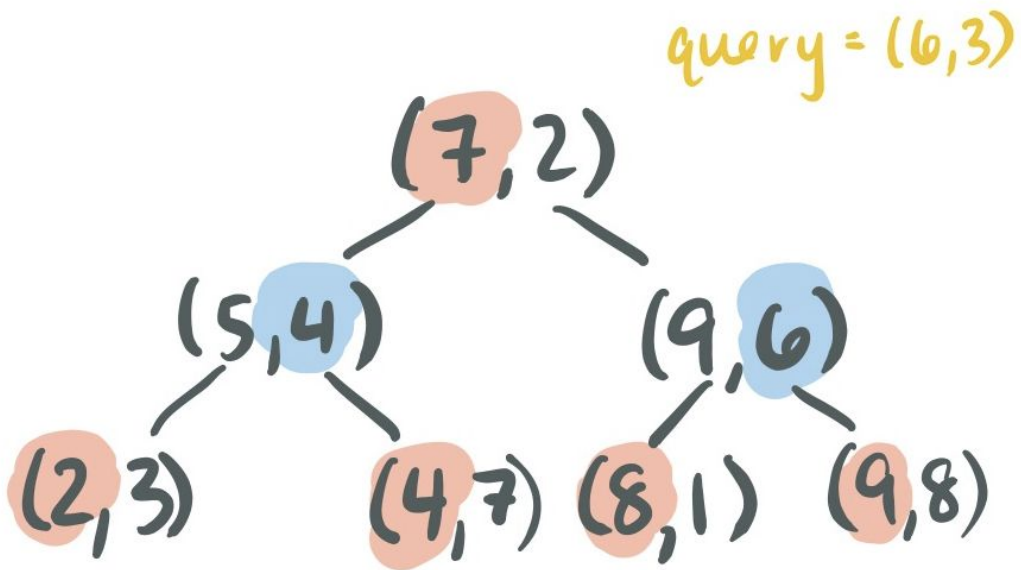
KD Trees

Learning Objectives

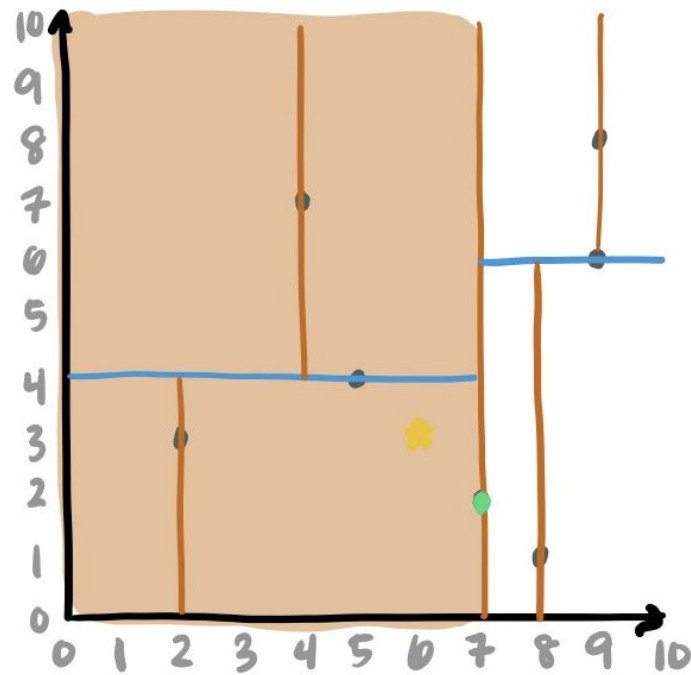
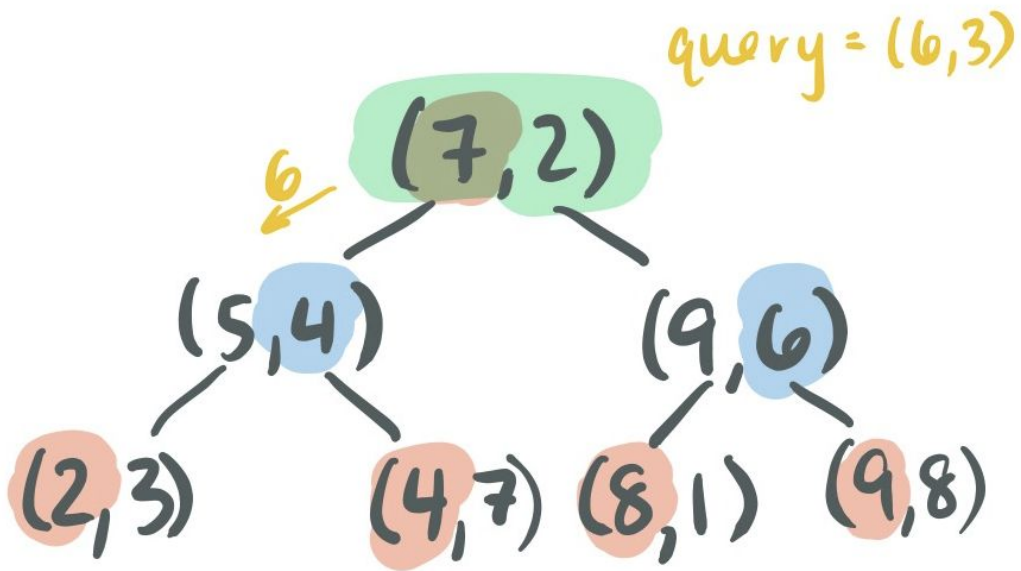
1. Use a KD Tree to find the nearest point in 2D



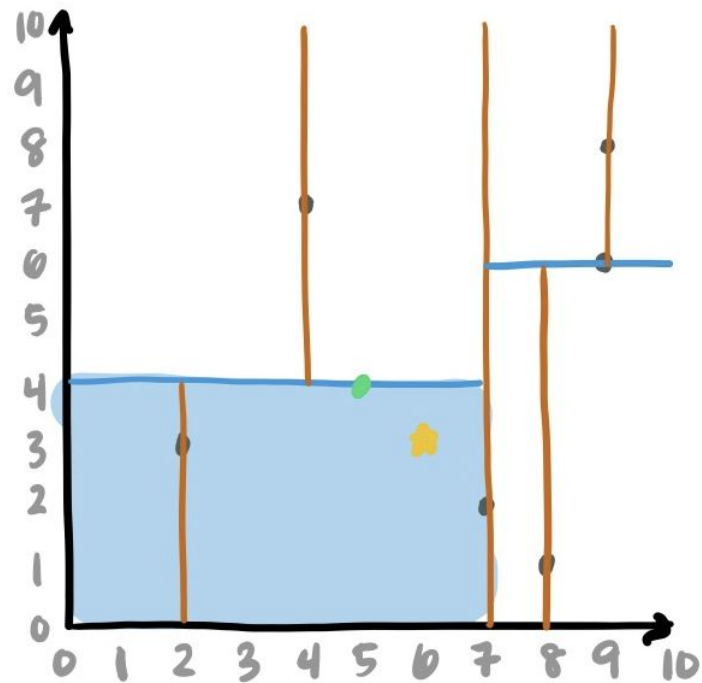
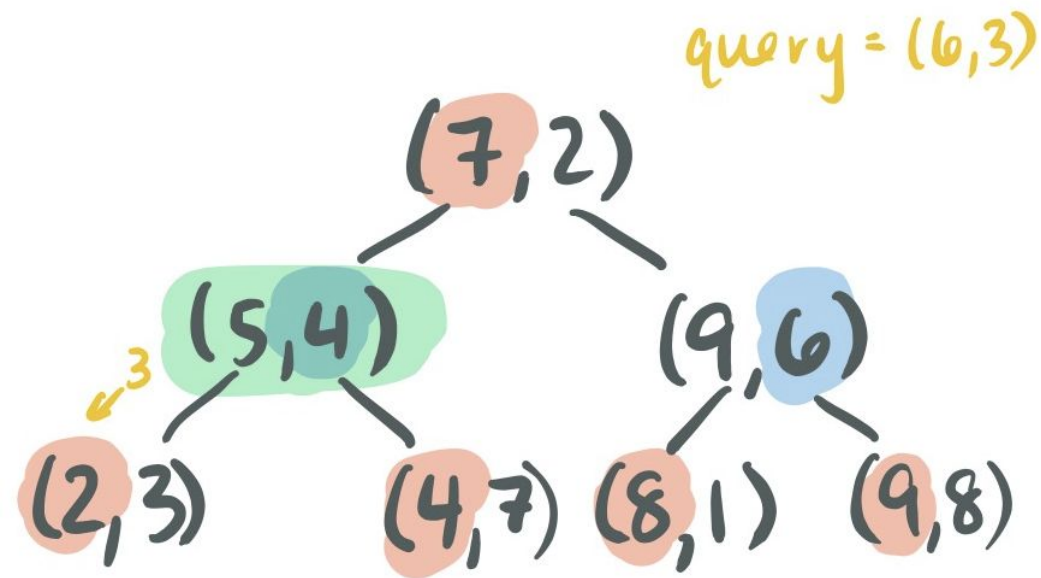
Nearest Neighbor KD Tree



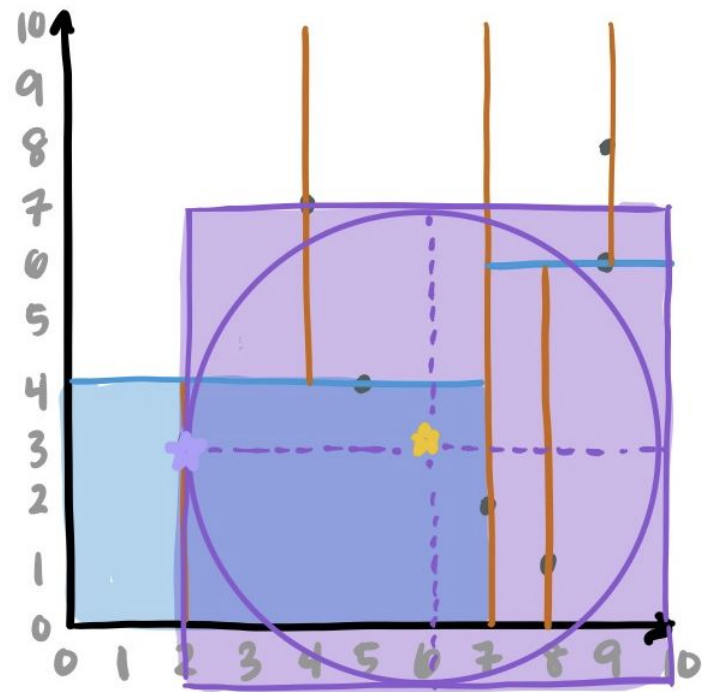
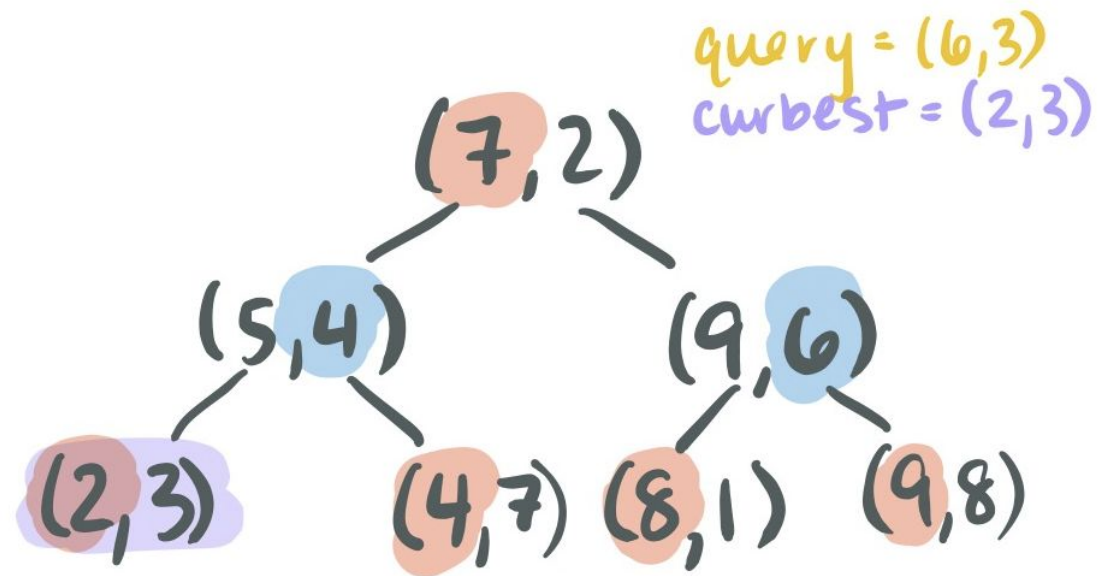
Nearest Neighbor KD Tree



Nearest Neighbor KD Tree



Nearest Neighbor KD Tree

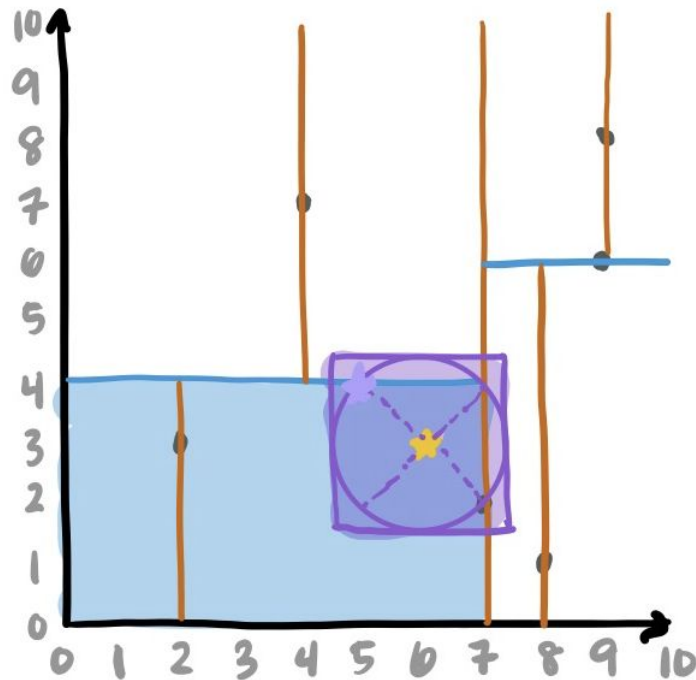
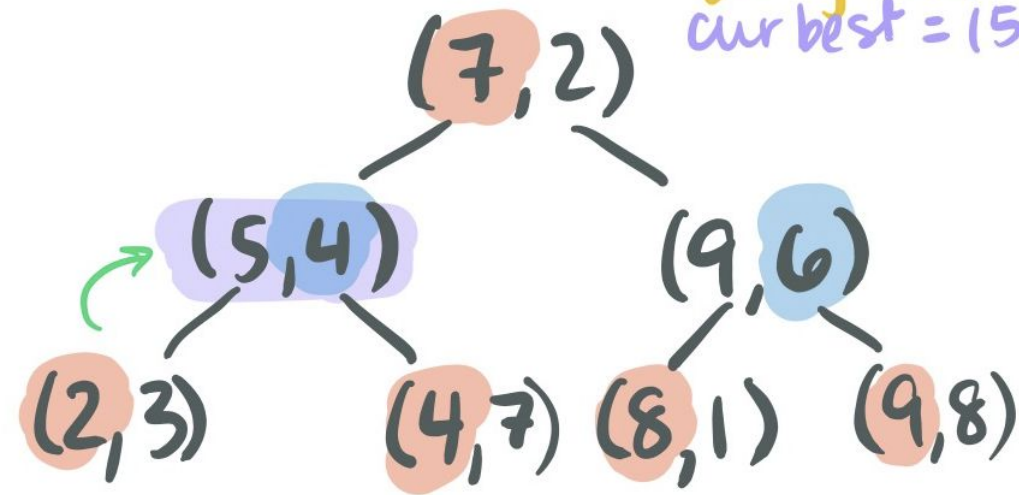


Nearest Neighbor KD Tree

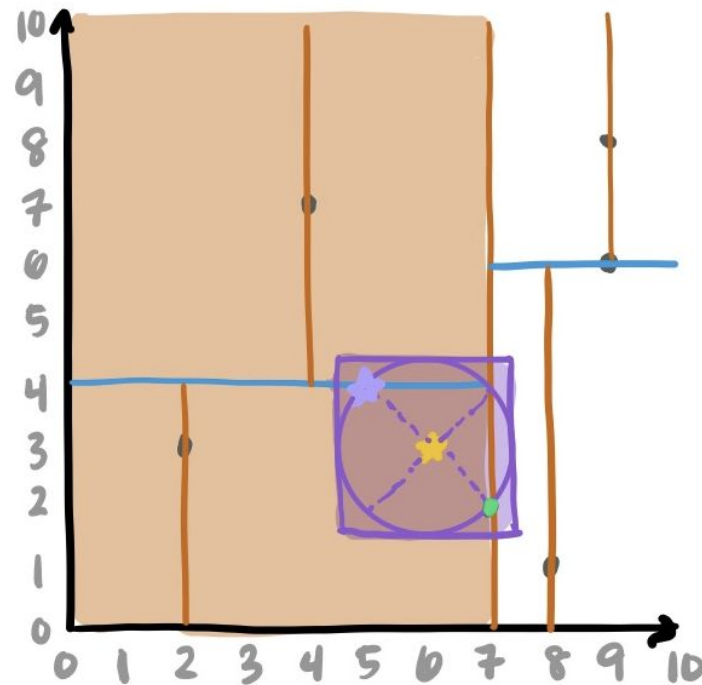
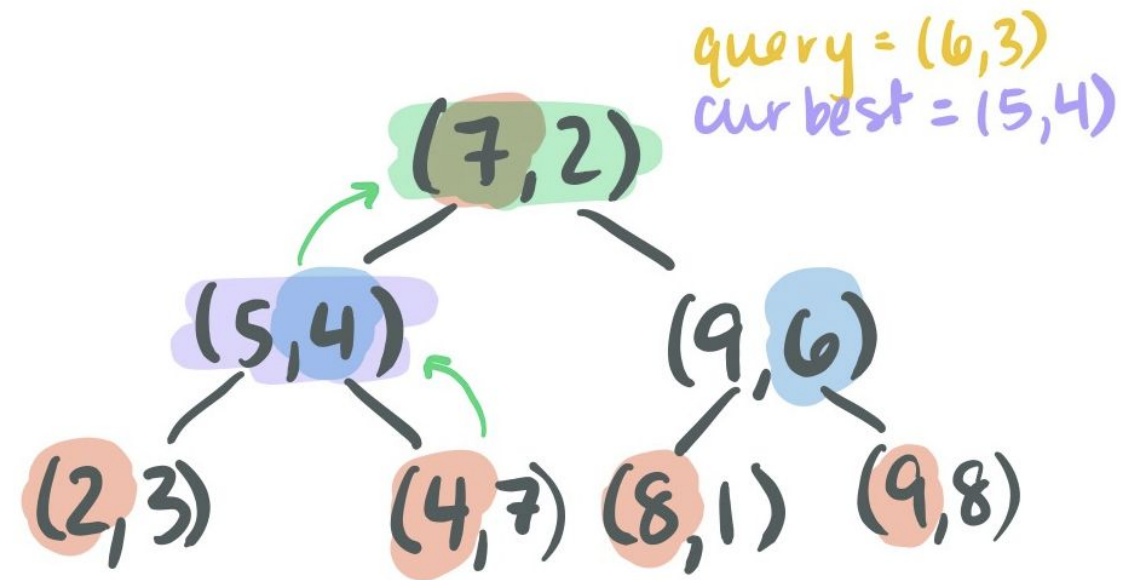
Backtracking: start recursing backwards

-- store "best" possibility as you trace back

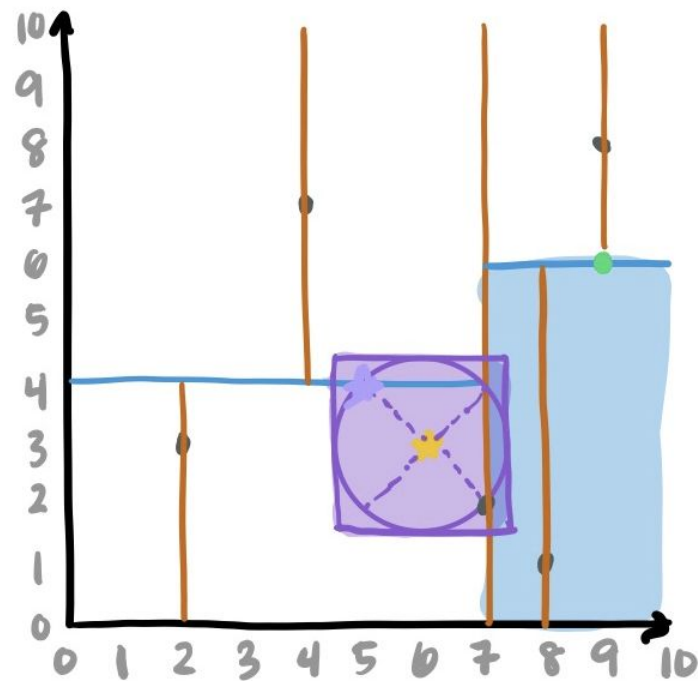
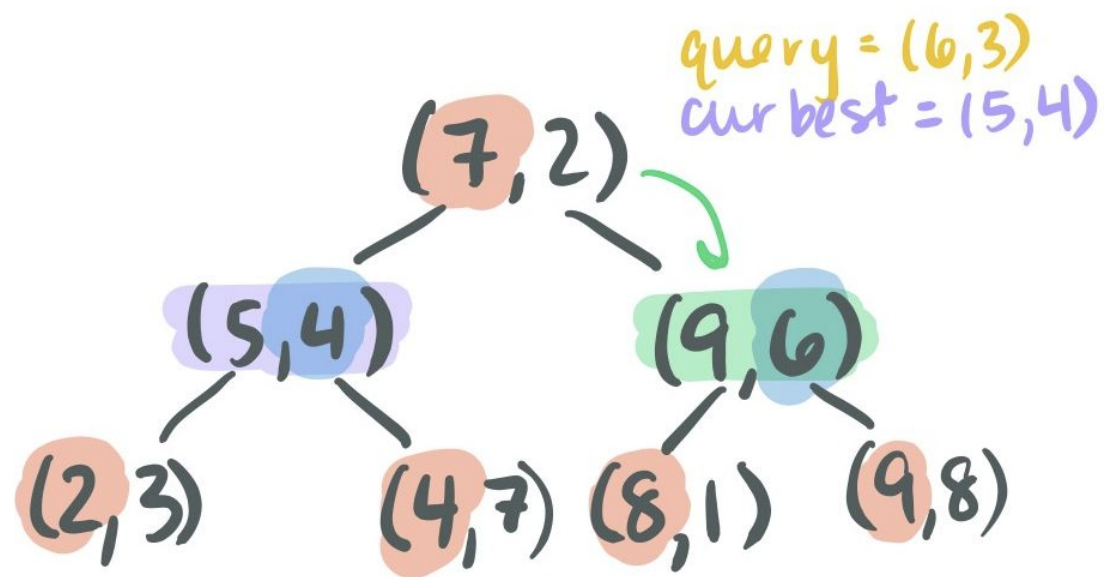
query = (6,3)
cur best = (5,4)



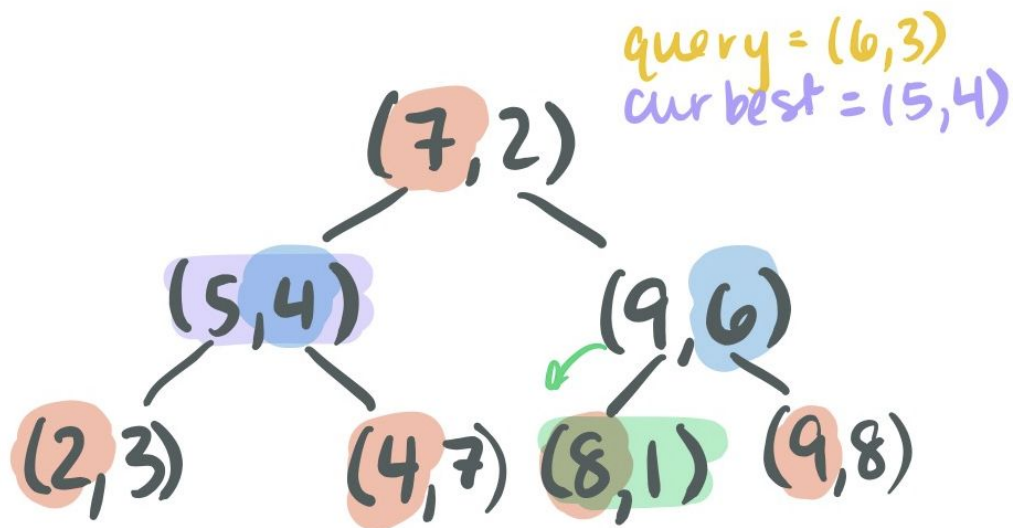
Nearest Neighbor KD Tree



Nearest Neighbor KD Tree



Nearest Neighbor KD Tree



BEST: (5,4)

