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1: function CREATETREE(points:list, dimensions:int, depth:int, parent:node)▷ for first iteration depth=0 and parent=null
2:   if length(points) = 0 then                                     ▷ Stop condition for recursive function
3:     return
4:   end if
5:   axis ← depth mod dimensions
6:   sort(points)                                                    ▷ sort along selected axis
7:   median ←  $\frac{\text{length}(\text{points})}{2}$ 
8:   root ← new Node(points[median], parent, axis, false)
9:   root.left ← CREATETREE(points[0 : median], dimensions, depth + 1, root)
10:  root.right ← CREATETREE(points[median : length(points)], dimensions, depth + 1, root)
11: end function

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