

```

private void createNode(Node root, BulkloadContext bulkloadContext,
SelectVpStrategy selectVpStrategy) {
    Deque<Node> nodeStack = new LinkedList<>();
    IntStack offsetStack = new IntStack(64), lengthStack = new IntStack(64);
    //迭代使用的偏移量栈和长度
    nodeStack.push(root);
    offsetStack.push(0);
    lengthStack.push(positions.length);
    //初始状态
    float[] distanceBuffer = new float[bulkloadContext.total];
    Node currentNode = null;
    int currentOffset, currentLength;
    int fanout = configuration.getFanout();
    SelectVpResult selectVpResult = new SelectVpResult();
    while (!nodeStack.isEmpty()) {
        currentNode = nodeStack.pop();
        currentOffset = offsetStack.pop();
        currentLength = lengthStack.pop();
        if (currentLength > configuration.getEntrySize()) {
            currentNode.initAsNonLeaf(configuration);
            selectVpStrategy.selectVp();//选取优先点
            .....//计算各个数据点与优先点的距离并
            --currentLength;//数据点总量减1
            if (currentLength <= fanout) {
                currentNode.childrenBounds.add(distanceBuffer[1]);
                .....//初始化为单个非叶节点并且入栈
            } else {
                int childSize = (int) Math.ceil(currentLength * 1.0 / fanout);
                //计算每个子树应有的数据点量
                for (int i = 0, start = 1, end; i < fanout; i++) {
                    end = Math.min(start + childSize - 1, currentLength);
                    if (end < start) {
                        break;
                    }
                    currentNode.childrenBounds.add(distanceBuffer[start]);
                    currentNode.childrenBounds.add(distanceBuffer[end]);
                    currentNode.distances[i] = distanceBuffer[end];
                    currentNode.childrenNodes[i] = new Node(nextNodeId(), false)
                    nodeStack.push(currentNode.childrenNodes[i]);
                    offsetStack.push(currentOffset + start);
                    lengthStack.push(end - start + 1);
                    start = end + 1;
                    //设置子树指针并分别为每路子树, 设置最大距离值, 距离上下界值
                }
            }
        } else {
            currentNode.initAsLeaf(currentLength);
            for (int i = 0; i < currentLength; i++) {
                currentNode.children.add(bulkloadContext.ids.get(currentOffset+
i));
            }
            //初始化叶节点, 结束一个分支
        }
    }
}

```