9 11/11/20   ADS LAB - 7

Abhiram
1 Bhu

Pseudocode:

```
void   insert (int k)
  if root = = NULL
  root =  new  Node (t, true);
  root -> keys [0] = k;
  root -> n = 1;
    else
      if  root->n == 2 * t - 1
        Node * s = new  Node (t, false);
        s -> C[0] = root;
        s -> splitChild (0, root);
        int  i = 0
        if (s -> keys(0) < h)
          i++
        s -> C (i) -> insert not full (h);
        root = s
      else
        root -> insert NotFull (h);

void  insertNotFull (int h)
  int i = n - 1
  if leaf = = true
  while  i >= 0  &&  keys(i) > k
    keys (i+1) = keys (i);
    i - -
  keys (i+1) = k
  n = n + 1
  else
  while  i >= 0  &&  keys (i) > k
    i - - ;
```

```
if (c(i+1)->n == 2*t-1)
    splitchild(i+1, c(i+1));
    if (keys(i+1) < k)
        i++
    c(i+1)->insertNotFull(R);
```