```
void insertIntoNode(int k) {
  int i = n-1;
  if (leaf) {
    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 == 2t - 1)
      split(i+1, C[i+1])
    else if (keys[i+1] < k)
      i++;
  }
  C[i+1] -> insertIntoNode(k);
}
}
```

```
void split(int i, BTree * y) {
  BTree * z = new BTree(y->leaf);
  z->n = t-1;
  for (int j=0; j<t-1; j++)
    z->keys[i] = y->keys[j+t];
  if (y->leaf == false)
    for (int j=0; j<t; j++)
      z->C[j] = y->C[j+t];
```

```
y->n = t-1;
for (int j=n ;j>=i+1; j--)
    c[j+1] = c[j];

c[i+1] = z;
for (int j = n-1; j>=i ; j--)
    keys[j+1] = keys[j];
keys[i] = y->keys[t-1];
n = n+1;
}
```