

## BTree insertion

```
void insert (int k)
```

```
{
```

```
    if (root == null)
```

```
    { root = new Tree ;
```

```
      root → key → k    2 → n = 1
```

```
    }
```

```
    else
```

```
        if (root → n == 2 * t - 1)
```

```
        {
```

```
            BTreeNode * s = new BTreeNode ( t, false)
```

```
            s → c[0] = root ;
```

```
            s → splitchild (0, root
```

```
            // new root has two children
```

```
            int i = 0
```

```
            if (s → keys[s] < k)
```

```
                i++ ;
```

```
            s → c[i] → insert normal (k)
```

```
            root = s ;
```

```
        }
```

```
    } else
```

```
        root = insert normal (k)
```

```
    }
```

```
}
```

```
}
```