

\* PSEUDO CODE :

```
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] < k)
```

```
i++
```

```
s → (i) → insert not full (h);
```

```
root = s
```

```
else
```

```
root → insert NotFull (h);
```

```
void insert Not Full (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 (i+1) → n = 2 \* t - 1

split child (i+1, C[i+1]);

if keys(i+1) ≤ K

i++;

C[i+1] → insert Not Full (K);