

```

template <typename T>
void BinarySearchTree<T>::searchD(const T& item, bool& found,
                                Node<T>*& locPtr, Node<T>*& parent) const
{
    locPtr = root;
    parent = nullptr;
    found = false;
    while (!found && locPtr != nullptr) {
        if (item < locPtr->value) {
            parent = locPtr;
            locPtr = locPtr->left;
        }
        else if (locPtr->value < item) {
            parent = locPtr;
            locPtr = locPtr->right;
        }
        else {
            found = true;
        }
    }
}

```

```

template <typename T>
void BinarySearchTree<T>::deleteNode(const T& item)
{
    using namespace std;
    bool found;
    Node<T>* current;
    Node<T>* parent;
    searchD(item, found, current, parent);
    if (!found) {
        cout << "Item not in tree" << endl;
    }
    else {
        if ((current->left != nullptr) && (current->right != nullptr)) {
            Node<T>* currentSucc = current->right;
            parent = current;
            while (currentSucc->left != nullptr) {
                parent = currentSucc;
                currentSucc = currentSucc->left;
            }
            current->value = currentSucc->value;
            current = currentSucc;
        }
    }
}

```

```
Node<T>* subtree = current->left;
if (subtree == nullptr) {
    subtree = current->right;
}
if (parent == nullptr) {
    root = subtree;
}
else if (parent->left == current) {
    parent->left = subtree;
}
else {
    parent->right = subtree;
}
delete current;
}
}
```