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Algorithmen und Datenstrukturen Übung 8

Gruppe 1

Aufgabe 8.1

```
printTree(Knoten k){
        if (k.left != null)
                printTree(k.left)
        print(k.key)
        if (k.right != null)
                printTree(k.right)
}
```

Aufgabe 8.2

```
bintree_node lookup(x);
        p = root;
        while p != O do
                if (x = p.key || p = v) then
                        break;
                end
                if x < p.key then
                        p = p.left
                else
                        p = p.right
                end
        end
        if p = v then
                print("The element was not found")
        return p;
}
```

Aufgabe 8.3

```
node{
        String key;
        int count;
        node left;
        node right;

        node(String word){
                key = word;
                count = 1;
                left = dummy;
        right = dummy;
    }
}
wordCount(String text){
    BinaryTree tree;
    node dummy;
    while(text.length > 0){
        word = text.nextword;
        if top = null
            tree.add(new node(word));
        else{
            node temp = tree.lookup(word);
            if temp = dummy
                tree.add(new node(word));
            else
                temp.count++;
        }
    }
    tree.printTree();
}
```