

# Ablauf Übungsstunde 2

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Neu: Interfaces in Java, Beispiel CalcTest.java

Neu: Iterator, Beispiel List.java

Aufgabenstellung Übung 2

Ringliste mit Kopfknoten

JUnit 4.0

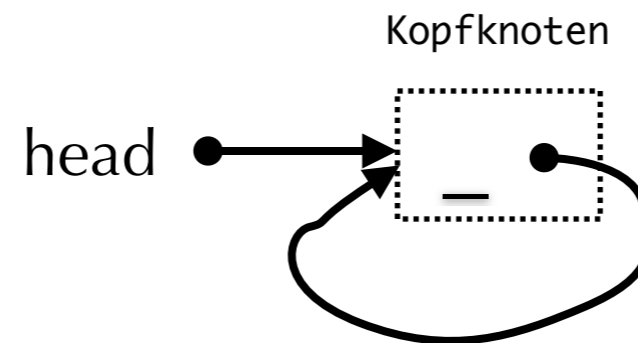
# Ringliste - leere Liste erzeugen

## Verkettete Liste



```
List() {  
    head = null;  
}
```

## Ringliste

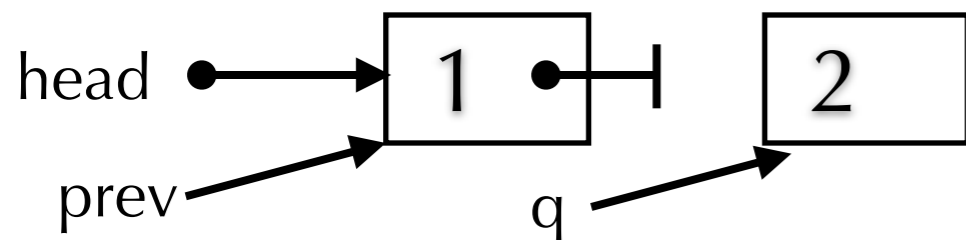


```
RingList() {  
    head = new Node();  
    head.next = head;  
}
```

# Ringliste - sortiert einfügen

## Verkettete Liste

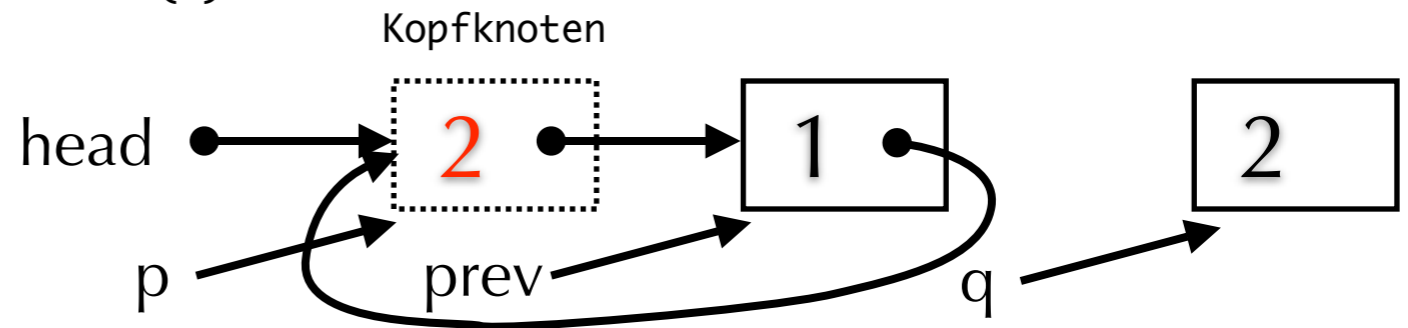
insert(2)



```
void insert(int val) {  
    Node p = head, prev = null;  
    while(p != null && p.val < val) {  
        prev = p;  
        p = p.next;  
    }  
    Node q = new Node(val);  
    q.next = p;  
    if(p == head)  
        head = q;  
    else  
        prev.next = p;  
}
```

## Ringliste

insert(2)



```
void insert(int val) {  
    head.val = val;  
    Node p = head.next, prev = head;  
    while(p.val < val) {  
        prev = p;  
        p = p.next;  
    }  
    Node q = new Node(val);  
    q.next = p;  
    prev.next = q;  
}
```

# JUnit 4.0

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Download von <http://www.junit.org>

junit-4.1.jar installieren

ClassPath setzen

```
export CLASSPATH=./Library/Java/Extensions/junit4.1/junit-4.1.jar    (Linux)
SET CLASSPATH=.;\JDK\junit4.1/junit-4.1.jar                        (Windows)
```

Test schreiben (Beispiel ListTest.java)

```
public class ListTest {
    @Test
    public void testList() {
        ...
    }
}
```

Test ausführen

```
java org.junit.runner.JUnitCore ListTest (Beispiel von oben)
java org.junit.runner.JUnitCore TestWordList (UnitTest zu Übung 2)
```