

# Java基础4 循环

循环一共包括三种循环 for循环, while循环, do while循环

## while循环

```
package lessons;

public class MyClass {

    public static void main(String[] args) {
        int a=1;
        while(a < 11){
            System.out.println(a);
            a++;
        }
    }
}
```

很简单满足条件, 这个循环经常会在数据结构用到, 比如ListNode head节点循环遍历:

```
while(head != null){
    head = head.next;
}
```

## do-while循环

```
package lessons;

public class MyClass {
    public static void main(String[] args) {
        int x = 1;
        int sum1 = 0;
        do{
            sum1 += x;
            x++;
        }while(x <= 100);
        System.out.println(sum1);
    }
}
```

do-while比较少用到, 但是一般可以作为先执行一次在判断条件。

## for循环

```
package Lessons;

public class MyClass {
    public static void main(String[] args) {
        int [] myarry = {100,67,234,89,178};
        for(int i=0; i< myarry.length; i++){
            System.out.println(myarry[i]);
        }
    }
}
```

```
package Lessons;

public class MyClass {
    public static void main(String[] args) {
        int sum = 0;
        for (int i=0; i<=100; i++){
            sum += i;
        }
        System.out.println(sum);
    }
}
```

for循环一般用于遍历数组元素或者进行n次循环对于遍历数组元素还有更好的操作：

```
int [] myarry = {100,67,234,89,178};
for(int my : marry){
    System.out.println(my);
}
```

```
int [] myarry = "abcdefg";
for(char my : marry.toCharArray()){
    System.out.println(my);
}
```