2021-10-31

> Today Learned:
>
> Introduction of Algorithms lecture 3 (Not all)
> (Corresponding to the 3rd chapters of the book)
>
> Today Exercise:
>
> Sqrt(x) (From LeetCode)

```
int mySqrt(int x) {
    if (x == 0) return 0;
    if (x == 1) return 1;
    int left = 0, right = x, res = 0;
    while (right - left > 1) {
        int mid = (right - left) / 2 + left;
        if (x / mid < mid) {
            right = mid;
        } else {
            left = mid;
            res = left;
        }
    }
    return res;
}
```

Coding Notes:

Binary-Search
"Sqrt(x)"

```
int mySqrt(int x){
    if(x==0) return 0;
    if(x==1) return 1;
    int left=0, right=x, res=0;
    while (right-left>1){
        int mid=(right-left)/2+left;
        if(x/mid<mid){
            right=mid;
        }else{
            left=mid;
            res=left;
        }
    }
    return res;
}
```