Code

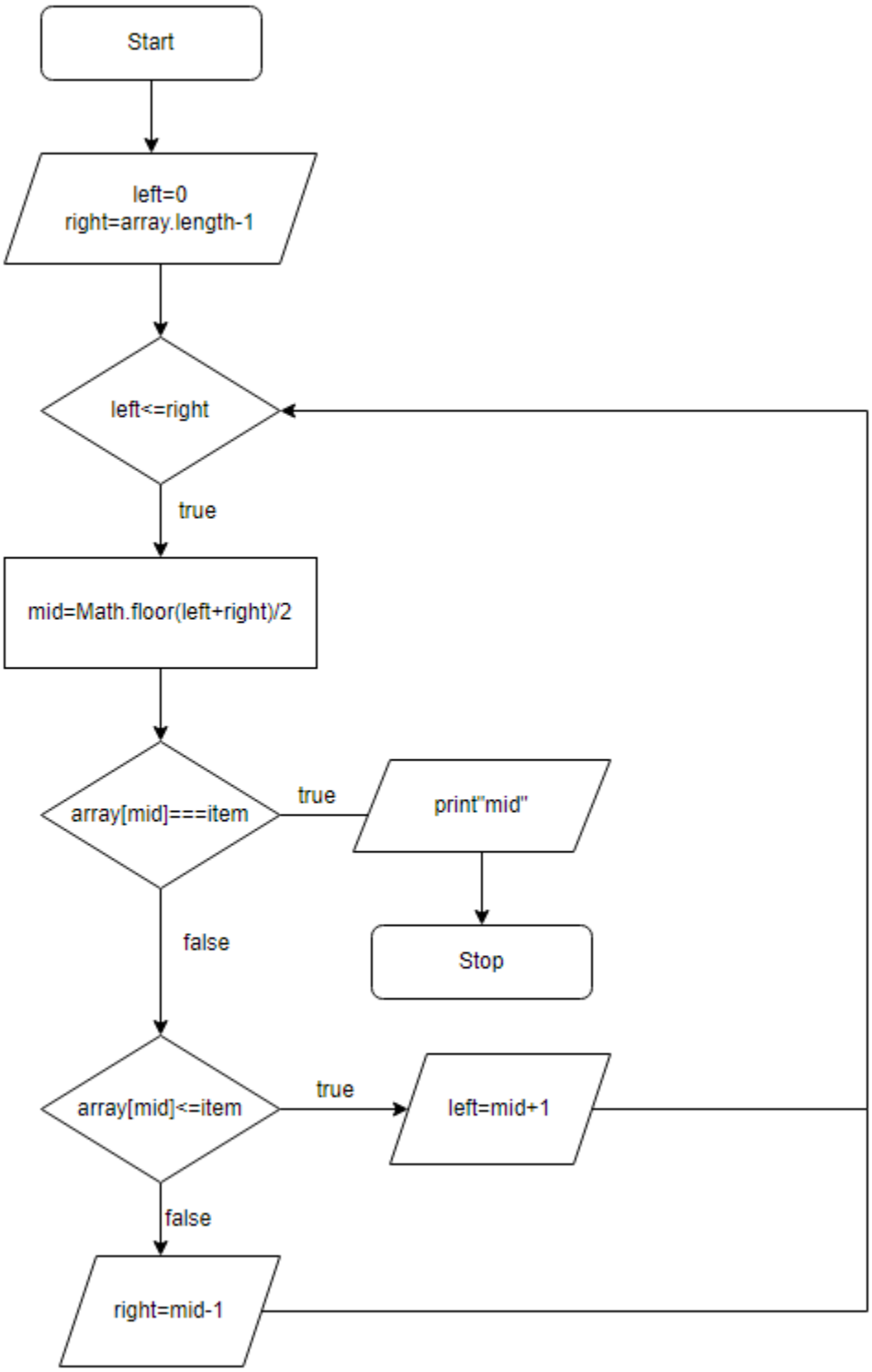
```
function binarySearch(array,item)
{
    let left=0;
    let right=array.length-1;
    while(left<=right)
    {
       let mid=Math.floor((left+right)/2)
        if(array[mid]===item){
            return mid;
        }
        if(array[mid]<=item)
        {
            left=mid+1;
           }
        else
        {
            right=mid-1;
        }

    }


return -1;
}

array =[10,20,30,40,50,60,70,80,90]
item =30
let index=binarySearch(array,item)
console.log(index)
```

Flowchart


Start
left=0
right=array.length-1
left<=right
true
mid=Math.floor(left+right)/2
array[mid]===item
true
print"mid"
Stop
false
array[mid]<=item
true
left=mid+1
false
right=mid-1

Algorithm

Step 1: Start

Step 2: left=0

right=array.length-1

Step:3 : if left<=right

Step 4: Set mid=Math.floor(left+right)/2

Step 5: if array[mid]===item

Print “mid”

Go to step 8

Step:6 if array[mid]<=item

left = mid+1

Step 7: right= mid-1

Step 8: Stop