Floor of a number

public class floor {

public static void main(String[] args) {

int[] arr = {2, 3, 5, 9, 14, 16, 18};

*/\*Arrays.sort(arr);*

*System.out.println(Arrays.toString(arr));\*/*

int ans = findFloor(arr, 0, arr.length-1, 15);

System.out.println(ans);

}

static int findFloor(int[] arr, int start, int end,int target){

while(start <= end ){

int mid = start + (end -start)/2;

if(target > arr[mid]){

start = mid +1;

}

else if(target < arr[mid]){

end = mid -1;

}

else{

return arr[mid];

}

}

return arr[end];

}

}

All concepts same as original binary search, just return end if target(key isn’t found)

Since, e>s => loop breaks hence print end which is actually floor of the target.

[same as ceiling of a number..just print the end element arr[end]...]