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**Binary Search**

public class binarySearch {

public static void main(String[] args){

int[] arr = {3,6,9,12,15};

int key = 12;

int arrlength = arr.length;

binarySearch(arr,0,key,arrlength);

}

public static void binarySearch(int[] arr, int start, int key, int length){

int midValue = (start+length)/2;

while(start<=length){

if(arr[midValue]<key){

start = midValue + 1;

} else if(arr[midValue]==key){

System.out.println("Element is found at index :"+midValue);

break;

}else {

length=midValue-1;

}

midValue = (start+length)/2;

}

if(start>length){

System.out.println("Element is not found");

}

}

}

OUTPUT

Element is found at index :3