**Linear Search**

public class LinearSearch {

public static int linearSearch(int[] arr, int target) {

for (int i = 0; i < arr.length; i++) {

if (arr[i] == target) {

return i;

}

}

return -1;

}

public static void main(String[] args) {

int[] arr = {12, 34, 54, 2, 3, 42, 5, 9};

int target = 42;

int result = linearSearch(arr, target);

if (result == -1) {

System.out.println("Element not present in the array");

} else {

System.out.println("Element found at index " + result);

}

}

}

**Binary Search**

public class BinarySearch {

public static int binarySearch(int[] arr, int target) {

int left = 0;

int right = arr.length - 1;

while (left <= right) {

int mid = left + (right - left) / 2;

if (arr[mid] == target)

return mid;

if (arr[mid] < target)

left = mid + 1;

else

right = mid - 1;

}

return -1;

}

public static void main(String[] args) {

int[] arr = {1, 3, 5, 7, 9, 11, 13, 15};

int target = 7;

int result = binarySearch(arr, target);

if (result == -1)

System.out.println("Element not present in the array");

else

System.out.println("Element found at index " + result);

}

}