***Largest Element in an Array***

Given an array **arr** of size **N**, the task is to find the largest element in the given array.

**Example:**

***Input:****arr[] = {10, 20, 4}*  
***Output:****20*

***Input :****arr[] = {20, 10, 20, 4, 100}*  
***Output :****100*

**Approach 1 - Naive Method:**

import java.io.\*;

import java.lang.\*;

import java.math.\*;

import java.util.\*;

class GFG {

static int getlargest(int arr[], int n)

{

for (int i = 0; i < n; ++i) {

boolean flag = true;

for (int j = i; j < n; ++j) {

if (arr[j] > arr[i]) {

flag = false;

break;

}

}

if (flag == true) {

return arr[i];

}

}

return -1;

}

public static void main(String[] args)

throws IOException

{

int arr[] = { 5, 8, 20, 15 };

System.out.println("Largest in given array is "+getlargest(arr, 4));

}

}

**Output**

Largest in given array is 20

**Approach 2 – Linear Traversal:** One of the most simplest and basic approach to solve this problem is to simply traverse the whole list and find the maximum among them.

Follow the steps below to implement this idea:

* Create a local variable **max**to store the maximum among the list
* **Initialize max with the first element** initially, to start the comparison.
* Then **traverse the given array** from second element till end, and for each element:
  + **Compare the current element with max**
  + If the current element is greater than max, then **replace** the value of **max** with the current element.
* At the end, **return** and print the value of the largest element of array stored in **max**.

Below is the implementation of the above approach:

// Java Program to find maximum in arr[]

class Test

{

static int arr[] = {10, 324, 45, 90, 9808};

// Method to find maximum in arr[]

static int largest()

{

int i;

// Initialize maximum element

int max = arr[0];

// Traverse array elements from second and

// compare every element with current max

for (i = 1; i < arr.length; i++)

if (arr[i] > max)

max = arr[i];

return max;

}

// Driver method

public static void main(String[] args)

{

System.out.println("Largest in given array is " + largest());

}

}

**Output**

Largest in given array is 9808