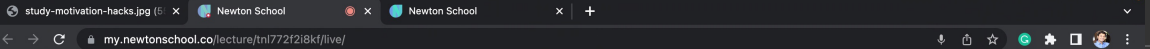


11 Nov 2023

How to find max. of an array.



Shared by Arunangshu Mullick

Download

```
Homework > March > 9_Mar > Main.java > Main > main(String[])  
1  import java.util.Scanner;  
2  
3  public class Main {  
4      Run | Debug  
5      public static void main(String[] Arunangshu) {  
6          System.out.println("WAP to find the maximum of the array.....");  
7          Scanner arun=new Scanner(System.in);  
8          int n,i;  
9          System.out.print("Enter the size of the array---->");  
10         n=arun.nextInt();  
11         int a[]=new int[n];  
12         System.out.println("Enter the array values one by one---->");  
13         for(i=0;i<n;i++){  
14             a[i]=arun.nextInt();  
15         }  
16         System.out.println("The array values are---->");  
17         for(i=0;i<n;i++){  
18             System.out.println(a[i]);  
19         }  
20         int max=a[0];  
21         for(i=1;i<n;i++){  
22             if(max<a[i]){  
23                 max=a[i];  
24             }  
25         }  
26         System.out.println("The maximum value in the array is--->" +max);  
27     }  
28 }
```

```
MINGW64/d/Newton School/Java Class/Codes/Homework/March/9_Mar  
$ javac Main.java  
HPDESKTOP-6F13TID MINGW64 /d/Newton School/Java Class/Codes/Homework/March/9_Mar  
$ java Main  
WAP to find the maximum of the array.....  
Enter the size of the array---->5  
Enter the array values one by one---->  
45  
30  
49  
21  
60  
The array values are---->  
45  
30  
49  
21  
60  
The maximum value in the array is--->60  
HPDESKTOP-6F13TID MINGW64 /d/Newton School/Java Class/Codes/Homework/March/9_Mar  
$ |
```

Activate Windows

← → NS 11 Mar

J Main.java

```

1 // WAP to check accept a 2D array and display it.
2 import java.util.Scanner;
3 public class Main
4 {
5     Run | Debug
6     public static void main(String[] args)
7     {
8         Scanner sc = new Scanner(System.in);
9         int row, col;
10        int a[][] = new int [2][3];
11        System.out.println("Enter the array elements row-wise:\n");
12
13        for(row=0; row<=1; row++)
14            for(col=0; col<=2; col++)
15                a[row][col] = sc.nextInt();
16
17        System.out.println("Array elements are as follows:\n");
18        for(row=0; row<=1; row++)
19        {
20            for(col=0; col<=2; col++)
21            {
22                System.out.print(a[row][col]+" ");
23            }
24            System.out.println();
25        }
26    }

```

Handwritten notes:

$a[2][2]$
 $row \ 0 \ \begin{matrix} col \\ 0 \end{matrix} \begin{matrix} col \\ 1 \end{matrix} \begin{matrix} col \\ 2 \end{matrix}$
 $\begin{matrix} row \\ 0 \end{matrix} \begin{matrix} 12 & 9 & 25 \\ 60 & 16 & -5 \end{matrix}$
 2×3
 $L \rightarrow R, T \rightarrow B$
 $for(row=0; row \leq 1; row++)$
 $\left[\begin{matrix} for(col=0; col \leq 2; col++) \\ a[row][col] = sc.nextInt(); \end{matrix} \right]$

Boxed notes:

$row = 0 \times 2$
 $col = 0 \times 2 \neq 3$
 $0 \times 2 \neq 3$

Ln 2, Col 1 Spaces: 4 UTF-8 LF () Java

← → NS 11 Mar

J Main.java

```

5 public static void main(String[] args)
6 {
7     Scanner sc = new Scanner(System.in);
8     int row, col;
9     int a[][] = new int [2][3];
10    System.out.println("Enter the array elements row-wise:\n");
11
12    for(row=0; row<=1; row++)
13        for(col=0; col<=2; col++)
14            a[row][col] = sc.nextInt();
15
16    System.out.println("Length of array is: "+a.length);
17
18    System.out.println("Array elements are as follows:\n");
19    for(row=0; row<=1; row++)
20    {
21        for(col=0; col<=2; col++)
22        {
23            System.out.print(a[row][col]+" ");
24        }
25        System.out.println();
26    }
27 }
28

```

Handwritten notes:

$a[2][2]$
 $row \ 0 \ \begin{matrix} col \\ 0 \end{matrix} \begin{matrix} col \\ 1 \end{matrix} \begin{matrix} col \\ 2 \end{matrix}$
 $\begin{matrix} row \\ 0 \end{matrix} \begin{matrix} 12 & 9 & 25 \\ 60 & 16 & -5 \end{matrix}$
 2×3
 $L \rightarrow R, T \rightarrow B$
 $for(row=0; row \leq 1; row++)$
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Boxed notes:

$row = 0 \times 2$
 $col = 0 \times 2 \neq 3$
 $0 \times 2 \neq 3$

o/p: 12 9 25 .
60 16 -5 .

Ln 9, Col 36 Spaces: 4 UTF-8 LF () Java

J Main.java

J Main.java > Main > main(String[])

```
60 // }
61
62
63 class Main
64 {
65     Run | Debug
66     public static void main(String[] args)
67     {
68         int[] age = {12, 4, 5};
69
70         System.out.println("Using for Loop:");
71
72         for(int i = 0; i < age.length; i++)
73         {
74             System.out.println(age[i]);
75         }
76     }
77 }
```

arr

0	1	2	3
1			

arr.length = 2

x

0	1	2	3
1			
2			
3			
4			
5			

2x4

x.length = 6

In 2D array it returns the no. of rows in the array.

age

0	1	2
12	4	5

age.length = 3

In 1D Array it returns the no. of elements/items in the array

for(i=0; i <= 2; i++)
 Sysln(age[i])

for(i=0; i <= (age.length-1); i++)

 Sysln(age[i])

for(i=0; i < age.length; i++)
 Sysln(age[i])

Adding matrices

$$A_{m \times n} + B_{m \times n} = C_{m \times n}$$

Given $A = \begin{bmatrix} 4 & 8 \\ 3 & 7 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 0 \\ 5 & 2 \end{bmatrix}$, let's find $A + B$.

We can find the sum simply by adding the corresponding entries in matrices A and B . This is shown below.

$$A + B = \begin{bmatrix} 4 & 8 \\ 3 & 7 \end{bmatrix} + \begin{bmatrix} 1 & 0 \\ 5 & 2 \end{bmatrix}$$

$$= \begin{bmatrix} 4+1 & 8+0 \\ 3+5 & 7+2 \end{bmatrix} = \begin{bmatrix} 5 & 8 \\ 8 & 9 \end{bmatrix}$$

$$C[i][j] = A[i][j] + B[i][j]$$

$$C[0][0] = A[0][0] + B[0][0]$$

$$C[0][1] = A[0][1] + B[0][1]$$

$$C[1][0] = A[1][0] + B[1][0]$$

$$C[1][1] = A[1][1] + B[1][1]$$

$i=0$ to #rows
 $j=0$ to #cols

for($i=0$; $i < 2$; $i++$)
for($j=0$; $j < 2$; $j++$)

$$C[i][j] = A[i][j] + B[i][j];$$

Up next: exercise