

Question :HATFD1020

Find the Majority Element in an Array

Write a program to find the majority element in an array (an element that appears more than $n/2$ times).

For example, in the array [3, 3, 4, 2, 4, 4, 2, 4, 4], the output should be 4. Do not use any built-in functions for array manipulation or counting.

Instructions: Implement a manual count and comparison logic to find the majority element.

```
public class Hashagile {  
  
    public static void main(String[] args) {  
  
        int finval=0;  
        int finc=0;  
        int arr[]={3,3,4,2,4,4,4,2,4,4};  
        for(int i=0;i<arr.length;i++)  
        {  
            int count =0;  
            for(int j=0;j<arr.length;j++)  
            {  
                if(arr[i]==arr[j])  
                {  
                    count++;  
                }  
            }  
            if(count>arr.length/2 && finc<count)  
            {  
                finval=arr[i];  
                finc=count;  
            }  
        }  
    }  
}
```

```
        }  
        System.out.println(finval);  
    }  
}
```

1.Sample input : {3,3,4,2,4,4,4,2,4,4}

Sample Output :4

2.Sample input : {3,3,4,2,4,4,4,2,4,4,1,1,1,1,1,1}

Sample Output :0

3.Sample input : {1,2,3,1,2,1,2,1,2,3,1,1,1}

Sample Output :1