Arrays

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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | Write a program to initialize an integer array and print the sum and average of the array.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **int** a[]=**new** **int**[] {1,2,3,4,5};  **int** s=0,avg=0,i=0;  **int** l=a.length;  **for**(i=0;i<l;i++)  {  s=s+a[i];  }  avg=s/l;  System.***out***.println("sum= "+s);  System.***out***.println("average= "+avg);  }  } | One dimensional Array |  |
| 2 | Write a program to initialize an integer array and find the maximum and minimum value of the array.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** i=0;  **int** a[]=**new** **int**[n];  **for**(i=0;i<n;i++)  a[i]=sc.nextInt();  **int** s=a[0];  **int** l=a[0];  **for**(i=0;i<n;i++)  {  **if**(s>a[i])  s=a[i];  **if**(l<a[i])  l=a[i];    }  System.***out***.println("small= "+s);  System.***out***.println("large= "+l);  }  } | One dimensional Array |  |
| 3 | Write a program to initialize an integer array with values and check if a given number is present in the array or not.  If the number is not found, it will print -1 else it will print the index value of the given number in the array.  Example 1) If the Array elements are {1,4,34,56,7} and the search element is 90, then the output expected is -1.  Example 2)If the Array elements are {1,4,34,56,7} and the search element is 56, then the output expected is 3.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** s=sc.nextInt();  **int** a[]=**new** **int**[n];  **int** i=0,k=0;  **for**(i=0;i<n;i++)  a[i]=sc.nextInt();  **for**(i=0;i<n;i++)  {  **if**(a[i]==s)  System.***out***.print(i);  **else**  k++;  }  **if**(k==n)  System.***out***.print(-1);  }  } | One dimensional Array |  |
| 4 | Initialize an integer array with ascii values and print the corresponding character values in a single row.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** a[]=**new** **int**[n];  **int** l=0;  **for**(l=0;l<n;l++)  a[l]=sc.nextInt();    String k =**null**;  **for**(**int** i: a)  {  k = Character.*toString*((**char**)i);  System.***out***.print(k+" ");  }    }  } | One dimensional Array |  |
| 5 | Write a program to find the largest 2 numbers and the smallest 2 numbers in the given array. | One dimensional Array |  |
| 6 | Write a program to initialize an array and print them in a sorted order.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** a[]=**new** **int**[n];  **int** l=0,temp=0;  **for**(l=0;l<n;l++)  a[l]=sc.nextInt();  **for**(l=0;l<n;l++)  {  **for**(**int** j=l+1;j<n;j++)  {  **if**(a[l]>a[j])  {  temp=a[l];  a[l]=a[j];  a[j]=temp;  }  }  }    **for**(**int** k : a)  System.***out***.print(k+" ");  }  } | One dimensional Array |  |
| 7 | Write a program to remove the duplicate elements in an array and print the same.  Example)  I/P:{12,34,12,45,67,89}  O/P:{12,34,45,67,89}  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** a[]=**new** **int**[n];  **int** l=0,temp=0,j=0;  **for**(l=0;l<n;l++)  a[l]=sc.nextInt();  **for**(l=0;l<n;l++)  {  **if**(a[l]!=0) {  **for**(j=l+1;j<n;j++)  {  **if**(a[l]==a[j])  a[j]=0;  }  }  }  System.***out***.print("{");  **for**(l=0;l<n;l++)  {  **if**(a[l]!=0)  System.***out***.print(a[l]+" ");    }  System.***out***.print("}");  }  } | One dimensional Array |  |
| 8 | Write a program to print the sum of the elements of an array following the given below condition.  If the array has 6 and 7 in succeeding orders, ignore the numbers between 6 and 7 and consider the other numbers for calculation of sum.  Eg1) Array Elements - 10,3,6,1,2,7,9  O/P: 22  [i.e 10+3+9]  Eg2) Array Elements - 7,1,2,3,6  O/P:19  Eg3) Array Elements - 1,6,4,7,9  O/P:10  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** a[]=**new** **int**[n];  **int** l=1,t=0,t1=0,s=0;  **for**(l=0;l<n;l++)  a[l]=sc.nextInt();  **for**(l=0;l<n;l++)  {  **if**(a[l]==6)  {  t=l;  }  **if**(t>0 && a[l]==7)  {  t1=l;  }  }  **for**(l=0;l<n;l++)  {  **if**(l<t || l>t1)  s=s+a[l];  }  System.***out***.print(s);  }  } | One dimensional Array |  |