

## Deleting duplicate elements in array:

```
TC
Line 1 Col 42 Insert Indent Tab Fill Unindent * C:DEL.C
/*deleting duplicate elements in array:*/_
#include<stdio.h>
#include<conio.h>
void main()
{
int a[10],i,j,k,n; clrscr();
printf("Enter array size 1-10 "); scanf("%d",&n);
printf("Enter %d integers",n); for(i=0;i<n;i++)scanf("%d",&a[i]);
for(i=0;i<n;i++)
{
for(j=i+1;j<n;j++)
{ if(a[i]==a[j]){n--; for(k=j;k<n;k++)a[k]=a[k+1];j--;}
}
}
printf("Elements are ");for(i=0;i<n;i++)printf("%4d",a[i]);
getch();
}
```

```
TC
Enter 8 integers1 1 1 2 3 4 1 1
Elements are 1 2 3 4_
```

## Using a user defined function:

```
TC
#include<stdio.h> #include<conio.h>
void del(int a[ ]); /* fun declaration */
int i,j,k,n;
void main()
{
int a[10]; clrscr();
printf("Enter array size 1-10 "); scanf("%d",&n);
printf("Enter %d integers",n); for(i=0;i<n;i++)scanf("%d",&a[i]);
del(a); /* fun calling */ getch();
}
void del(int a[]) /* fun definition */
{
for(i=0;i<n;i++)
{
for(j=i+1;j<n;j++){ if(a[i]==a[j]){n--; for(k=j;k<n;k++)a[k]=a[k+1];j--;}
}
}
printf("Elements are ");for(i=0;i<n;i++)printf("%4d",a[i]);
}
}

Notepad
TC
Enter array size 1-10 7
Enter 7 integers1 1 1 1 1 1 1
Elements are 1_

Page: 2 of 2 Words: 10 120% 4:49 PM 07/09/2022
```

```
TC
Enter array size 1-10 7
Enter 7 integers 2 9 0 1 2 0 9
Elements are 2 9 0 1
```

Eg. finding 2<sup>nd</sup> max, 2<sup>nd</sup> min array elements.

Using sorting mechanism.

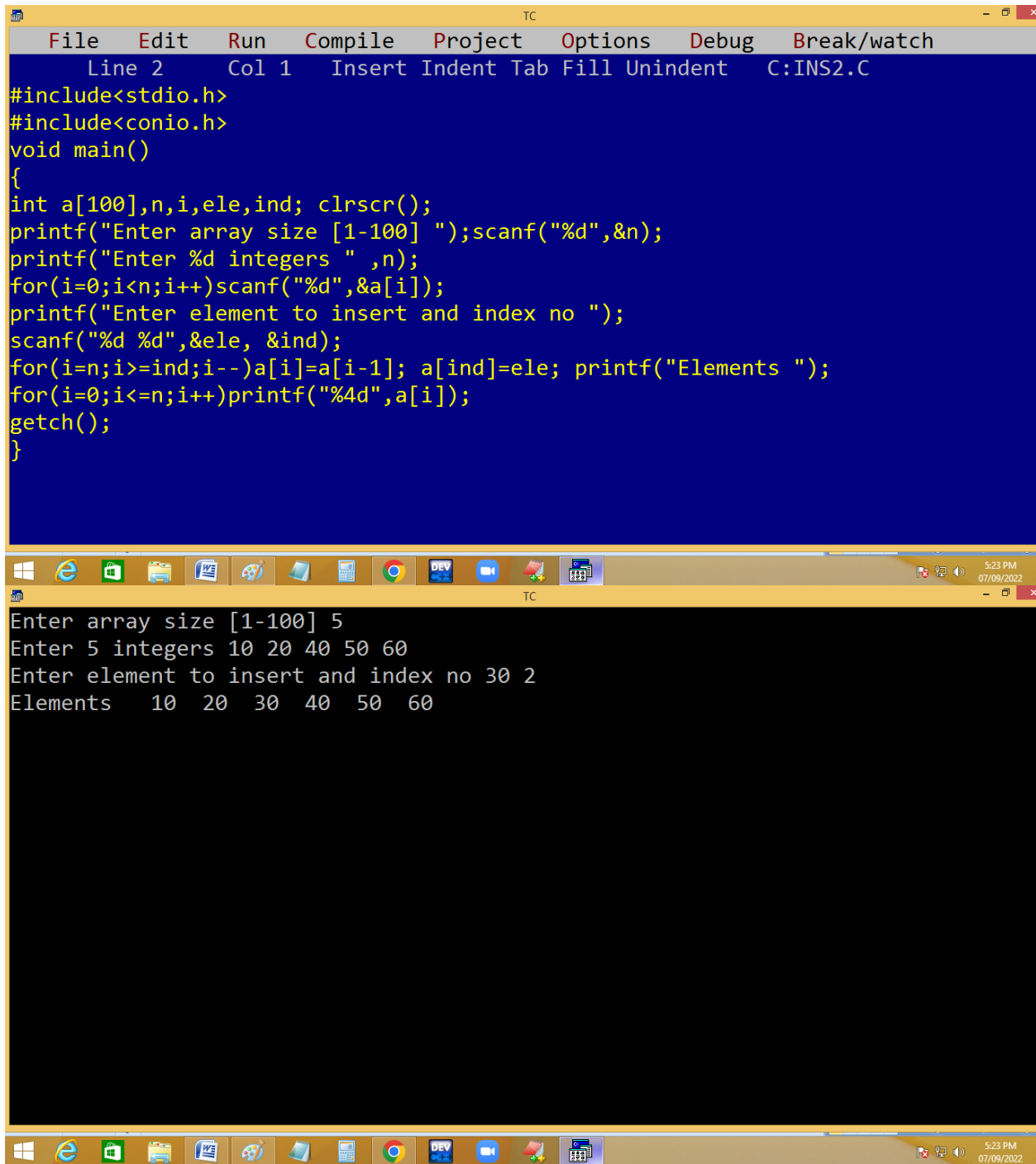
```
TC
#include<stdio.h> #include<conio.h>
main()
{
int a[100], n, i,j,temp,max1, min1, max2,min2; clrscr();
printf("Enter array size [1-100] ");scanf("%d",&n);
printf("Enter %d integers ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
for(i=0;i<=n-2;i++)
{
for(j=i+1;j<=n-1;j++)
{if(a[i]>a[j]){temp=a[i];a[i]=a[j]; a[j]=temp;}}
}
printf("Elements ");
for(i=0;i<n;i++)printf("%4d",a[i]);
max1=a[n-1]; min1=a[0]; max2=a[n-2]; min2=a[1];
for(i=0;i<n;i++)if(min1!=a[i]){min2=a[i];break;}
for(i=n-2;i>=0;i--)if(max1!=a[i]){max2=a[i];break;}
printf("\nMin1=%d, Min2=%d, Max1=%d, Max2=%d",min1,min2,max1,max2);
getch();
}
```

```
TC
Enter array size [1-100] 7
Enter 7 integers 1 1 7 3 7 4 5
Elements    1    1    3    4    5    7    7
Min1=1, Min2=3, Max1=7, Max2=5_
```

Page: 4 of 4 Words: 21

5:13 PM 07/09/2022

**Inserting element based on index no.**



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 2 Col 1 Insert Indent Tab Fill Unindent C:INS2.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i,ele,ind; clrscr();
printf("Enter array size [1-100] ");scanf("%d",&n);
printf("Enter %d integers ",n);
for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Enter element to insert and index no ");
scanf("%d %d",&ele, &ind);
for(i=n;i>=ind;i--)a[i]=a[i-1]; a[ind]=ele; printf("Elements ");
for(i=0;i<=n;i++)printf("%4d",a[i]);
getch();
}
```

Enter array size [1-100] 5  
Enter 5 integers 10 20 40 50 60  
Enter element to insert and index no 30 2  
Elements 10 20 30 40 50 60

**Finding mixed array or not.**

```
#include<stdio.h> #include<conio.h>
void array(int a[ ]); /* declaration */
int a[100],n,i,e=0,o=0,z=0;
void main()
{
clrscr(); printf("Enter array size [1-100] ");scanf("%d",&n);
printf("Enter %d integers ",n); array(a); /* fun calling */ getch();
}
void array(int a[]) /* fun definition */
{
for(i=0;i<n;i++)
{
scanf("%d",&a[i]);if(a[i]==0)z=1; else if(a[i]%2==0)e=1; else o=1;
}
if(e==1&&o==1||e==1&&z==1||o==1&&z==1)puts("Mixed array");
else if(e==1 && o==0 && z==0)puts("Even array");
else if(o==1 && e==0 && z==0)puts("Odd array");
else puts("Zero elements array");
}
```

Enter array size [1-100] 4  
Enter 4 integers 1 2 3 4  
Mixed array

**Eg. array elements frequency.**

```
TC
Line 1 Col 1 Insert Indent Tab Fill Unindent C:FREEINTA.C
#include<stdio.h> #include<conio.h>
void main()
{
int a[100], t[100], i, j, c, n;
clrscr(); printf("Enter array size [1-100] "); scanf("%d", &n);
printf("Enter %d integers ", n); for(i=0; i<n; i++) scanf("%d", &a[i]);
for(i=0; i<n; i++)
{
for(c=1, j=i+1; j<n; j++)
{
if(a[i]==a[j]) {t[j]=-1; c++;}
}
if(t[i]!=-1) t[i]=c;
}
for(i=0; i<n; i++) if(t[i]!=-1) printf("%d found %d times\n", a[i], t[i]);
getch();
}

TC
Enter array size [1-100] 7
Enter 7 integers 1 2 3 1 2 3 4
1 found 2 times
2 found 2 times
3 found 2 times
4 found 1 times

Page: 7 of 7 Words: 36 120% 6:04 PM 07/09/2022
```

```
for(i=0;i<5;i++)
```

```
{
```

```
int c=1;
```

```
for( j=i+1;j<n;j++)
```

```
{
```

```
if(a[i]==a[ j]){c++; a[ j]= -1;}
```

```
}
```

```
if(temp[i]!=-1)temp[i]=c;
```

```
}
```

```
for(i=0;i<5;i++) if(t[i] != -1) p("%d - %d times\n", a[i],t[i]);
```

t	2	1	2	-1	-1
a	10	20	30	10	30
	0	1	2	3	4

<u>1</u>	<u>1</u>	<u>2</u>
0	1	2
1	2	2
2	3	