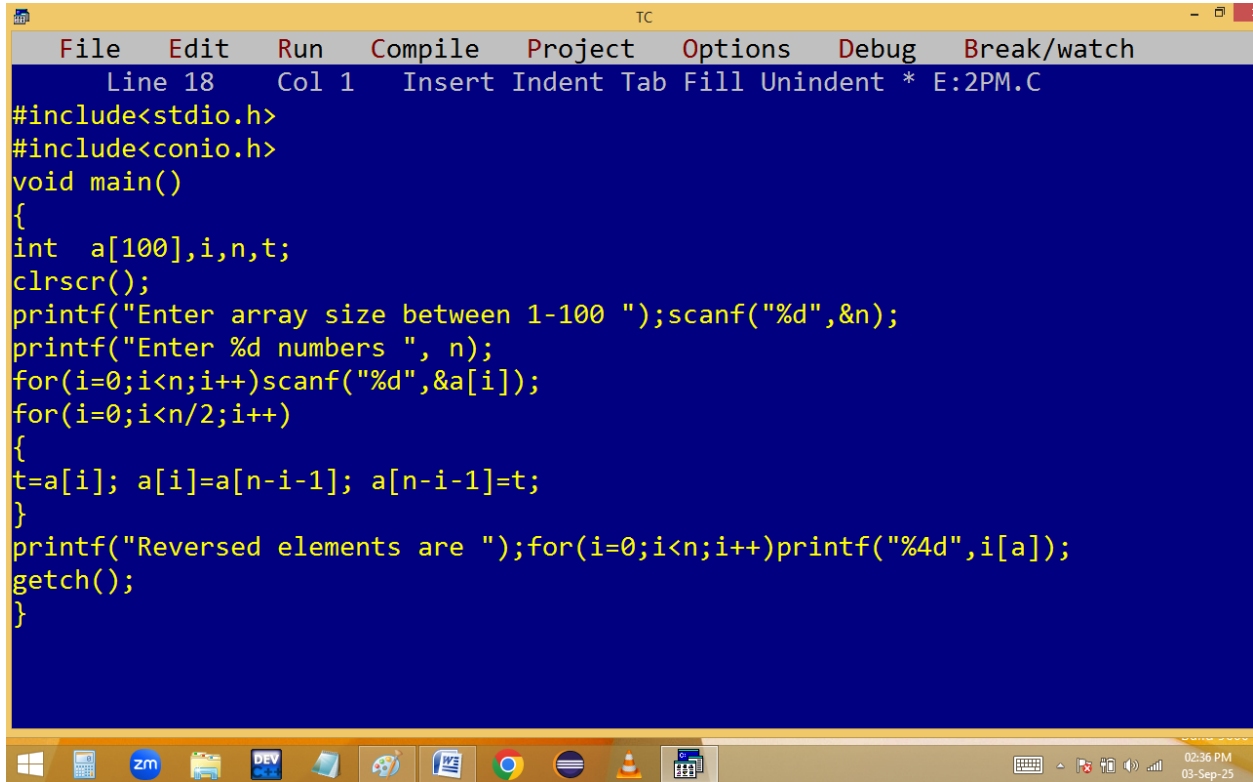


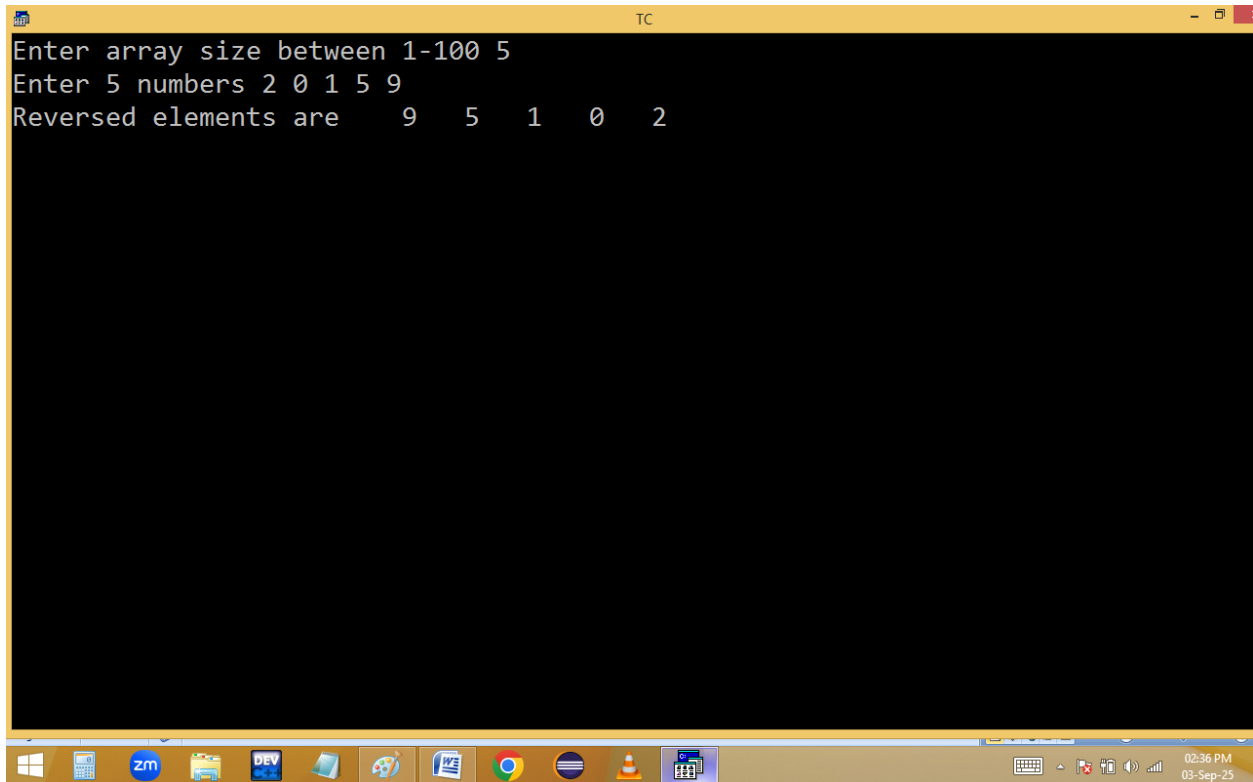
Arrange array elements in reverse order permanently.



The screenshot shows a Turbo C++ (TC) IDE window with a menu bar (File, Edit, Run, Compile, Project, Options, Debug, Break/watch) and a status bar (Line 18, Col 1, Insert, Indent, Tab, Fill, Unindent, * E:2PM.C). The main editing area has a blue background and contains the following C code:

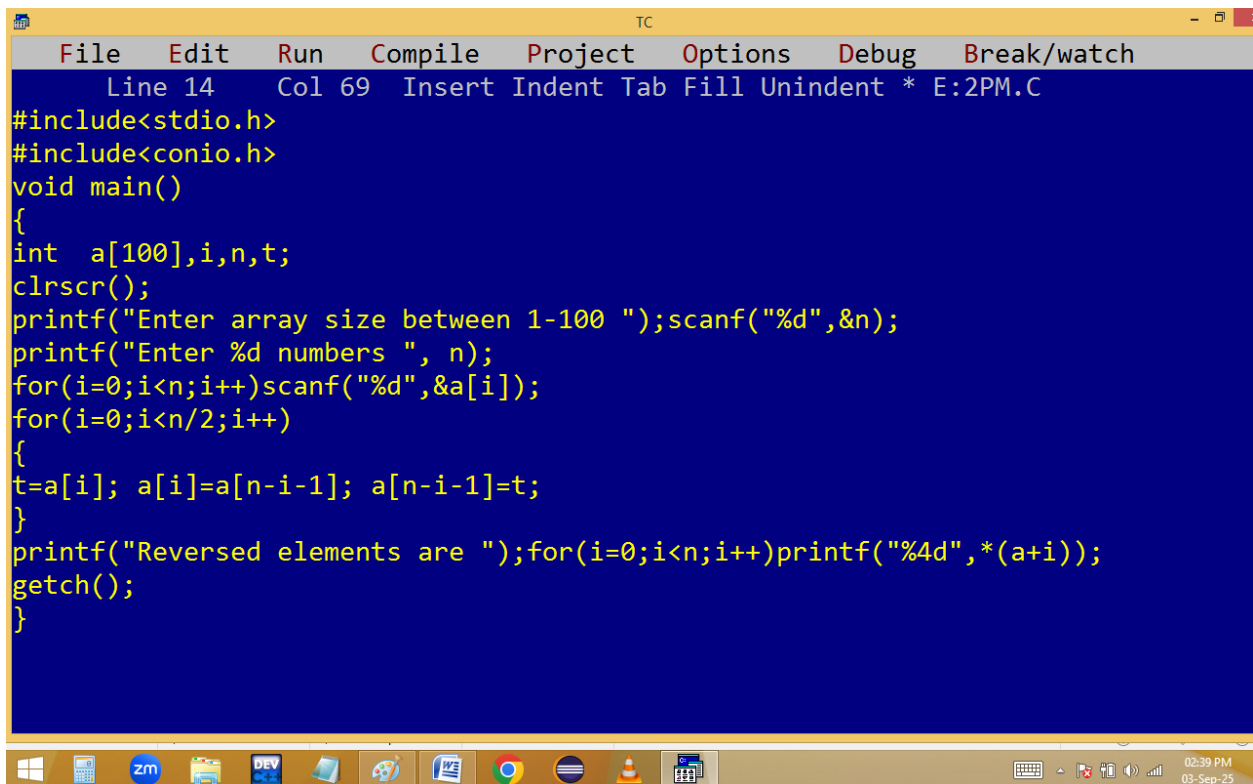
```
#include<stdio.h>
#include<conio.h>
void main()
{
int  a[100],i,n,t;
clrscr();
printf("Enter array size between 1-100 ");scanf("%d",&n);
printf("Enter %d numbers ", n);
for(i=0;i<n;i++)scanf("%d",&a[i]);
for(i=0;i<n/2;i++)
{
t=a[i]; a[i]=a[n-i-1]; a[n-i-1]=t;
}
printf("Reversed elements are ");for(i=0;i<n;i++)printf("%4d",i[a]);
getch();
}
```

The Windows taskbar at the bottom shows various icons including Windows, ZM, DEV, and others, along with the system clock indicating 02:36 PM on 03-Sep-25.



The screenshot shows a Turbo C++ (TC) console window with a black background and white text. The program prompts the user to enter an array size between 1 and 100, followed by 5 numbers. The input provided is 5 for the size and 2 0 1 5 9 for the numbers. The output displays the reversed elements: 9 5 1 0 2. The window title is 'TC'. The taskbar at the bottom shows various application icons and the system clock indicating 02:36 PM on 03-Sep-25.

```
Enter array size between 1-100 5
Enter 5 numbers 2 0 1 5 9
Reversed elements are    9    5    1    0    2
```



The screenshot shows the Turbo C++ (TC) editor window with a blue background and yellow text. The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the top indicates 'Line 14 Col 69 Insert Indent Tab Fill Unindent * E:2PM.C'. The source code is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int  a[100],i,n,t;
clrscr();
printf("Enter array size between 1-100 ");scanf("%d",&n);
printf("Enter %d numbers ", n);
for(i=0;i<n;i++)scanf("%d",&a[i]);
for(i=0;i<n/2;i++)
{
t=a[i]; a[i]=a[n-i-1]; a[n-i-1]=t;
}
printf("Reversed elements are ");for(i=0;i<n;i++)printf("%4d",*(a+i));
getch();
}
```

The window title is 'TC'. The taskbar at the bottom shows various application icons and the system clock indicating 02:39 PM on 03-Sep-25.

```

Enter array size between 1-100 4
Enter 4 numbers 1 2 3 4
Reversed elements are 4 3 2 1_

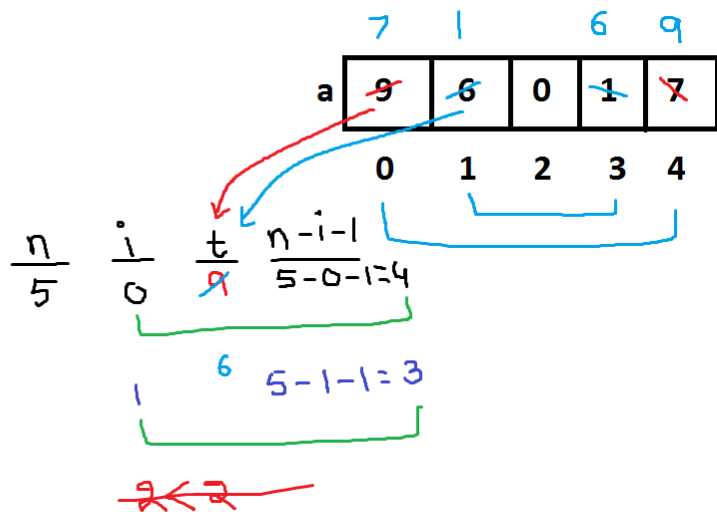
```

for(i=0;i<n/2;i++)

```

{
  t=a[i];
  a[i]=a[n-i-1];
  a[n-i-1]=t;
}

```



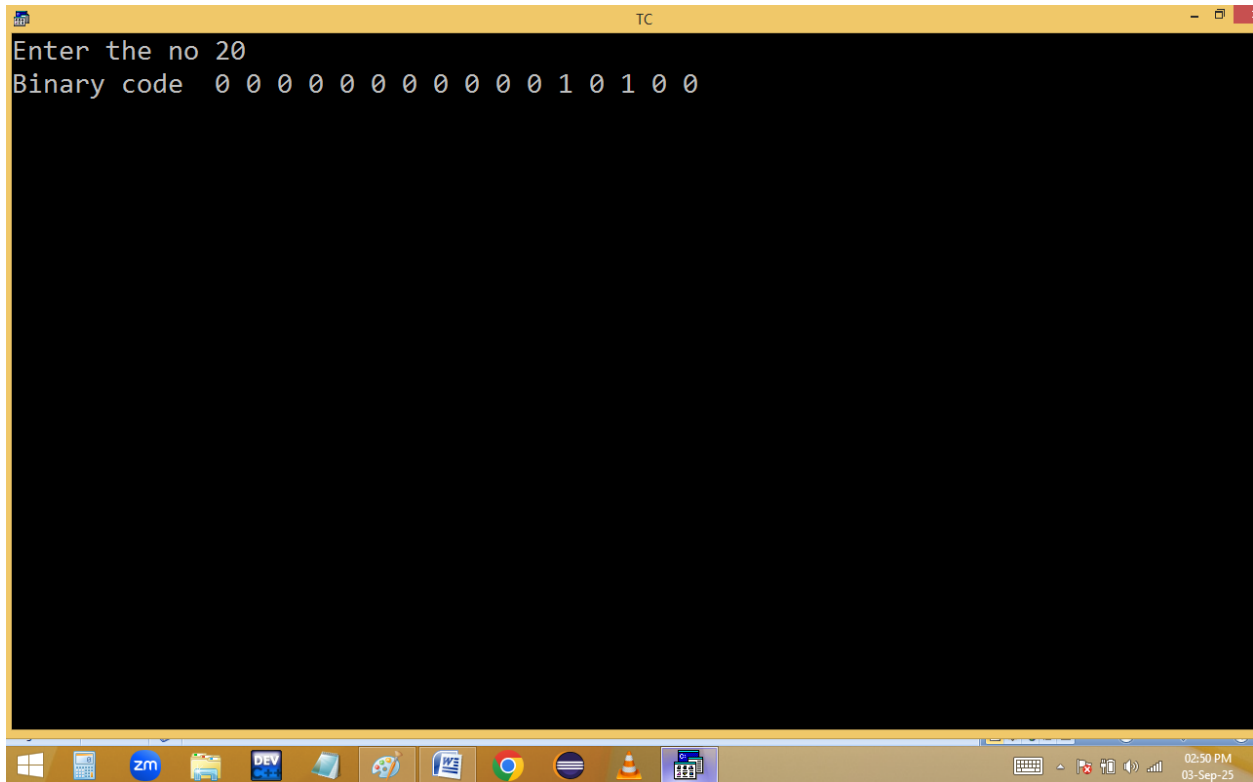


1. Decimal to binary conversion

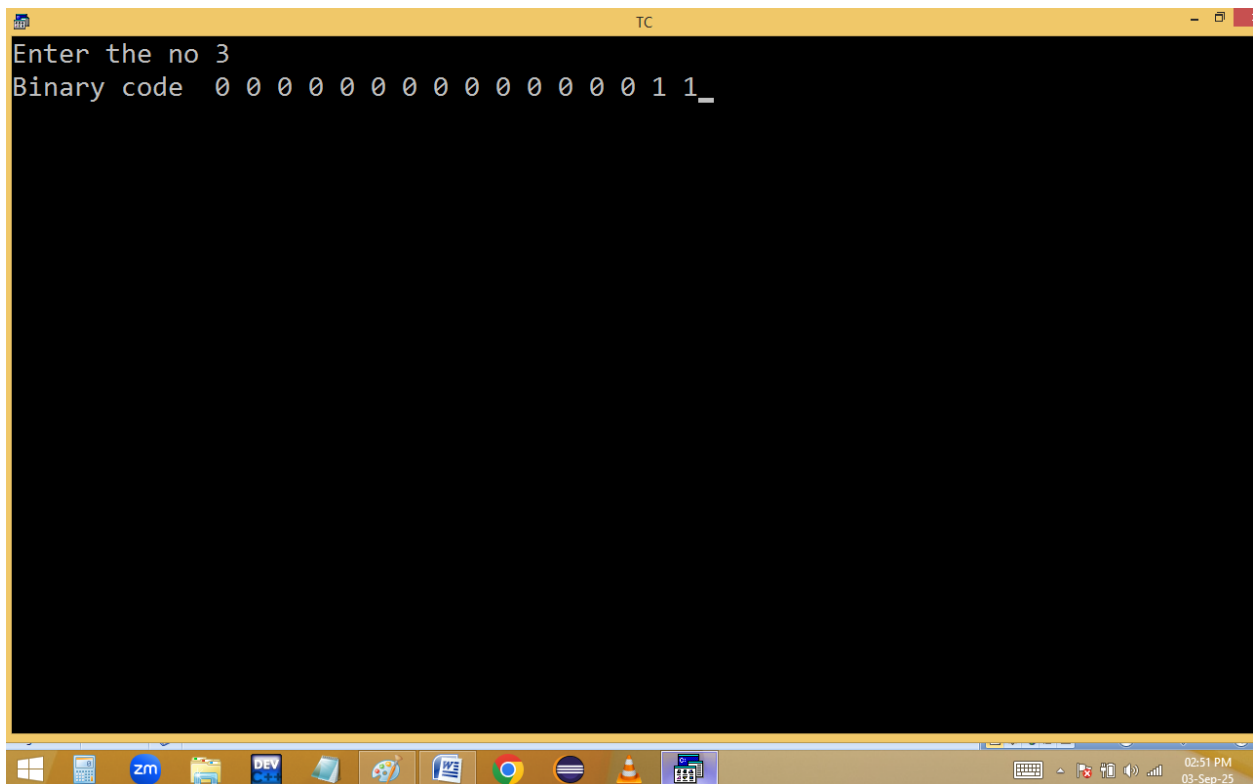
Eg: **20 ==> 0000 0000 0001 0100**

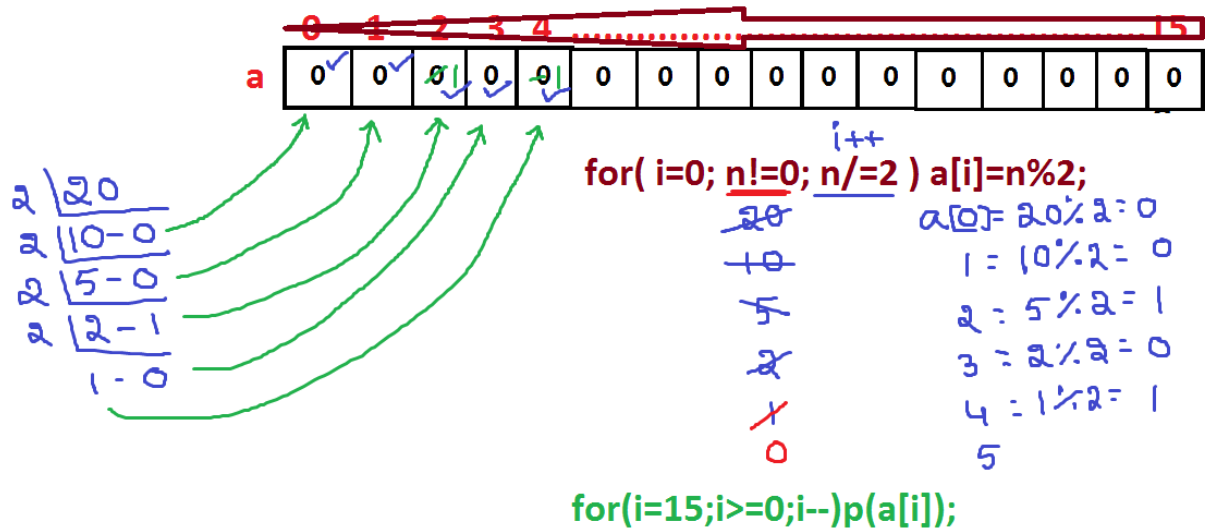
```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 30 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,i,a[16]={0};
    clrscr();
    printf("Enter the no "); scanf("%d",&n);
    for(i=0;n!=0;i++,n/=2)a[i]=n%2; /* dec to binary */
    printf("Binary code ");
    for(i=15;i>=0;i--)printf("%2d_",a[i]);
    getch();
}
```

```
TC
Enter the no 20
Binary code 0 0 0 0 0 0 0 0 0 0 0 1 0 1 0 0
```



```
TC
Enter the no 3
Binary code 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1_
```





decimal to octal:

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 48 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,a[16]={0};
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=0;n!=0;i++,n/=8)a[i]=n%8; /* dec to Octal */
printf("Octal code ");
for(i=15;i>=0;i--)printf("%2d",a[i]);
getch();
}
```

```
TC
Enter the no 20
Octal code  0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 4
```

$$\begin{array}{r} 8 \overline{) 20} \\ 2-4 \checkmark \end{array}$$

Decimal to hexa:

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 30 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,a[16]={0};
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=0;n!=0;i++,n/=16)a[i]=n%16; /* dec to hexa*/
printf("Octal code ");
for(i=15;i>=0;i--)if(a[i]<10)printf("%2d",a[i]); else printf("%2c",87+a[i]);
getch();
}
```



```
TC
Enter the no 95
Octal code 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 f_
```

```
TC
Enter the no 45
Octal code 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 d
```

```
TC
Enter the no 20
Octal code 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 4_
```

$$\begin{array}{r} 16 \overline{) 45} \\ 2 - 13 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 16 \overline{) 20} \\ 1 - 4 \checkmark \end{array}$$

$$\begin{array}{r} 16 \overline{) 95} \\ 5 - 15 \\ \hline f \end{array}$$

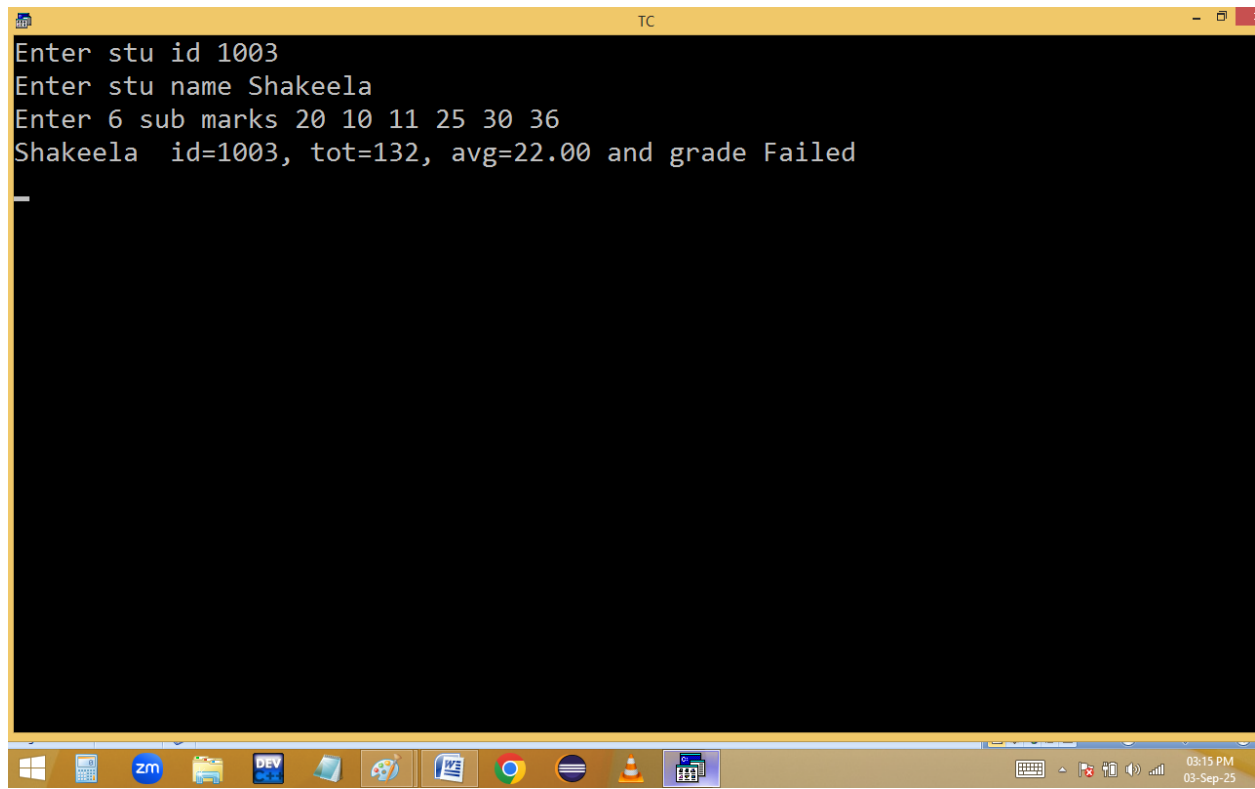
Read a stu id, name, 6 sub marks using array. Find total, average and grade using below table.

Avg	Grade
>=80	Distinction
>=60	1st class
>=50	2nd class
>=35	3rd class
<35	Fail

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 4 Col 47 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{int id,sub[6],tot=0, i,pass=1;char name[30];float avg;
clrscr();
printf("Enter stu id "); scanf("%d",&id);
flushall();
printf("Enter stu name "); gets(name);
printf("Enter 6 sub marks ");
for(i=0;i<6;i++){scanf("%d",&sub[i]);tot+=sub[i];if(sub[i]<35)pass=0;}
avg=tot/6.0;
printf("%s id=%d, tot=%d, avg=%.2f and grade ",name,id,tot,avg);
if(pass==0)puts("Failed");
else if(avg>=80)puts("Distinction");
else if(avg>=70)puts("1st Class");
else if(avg>=60)puts("2nd Class");
else puts("3rd Class");
getch();
}
```

```
TC
Enter stu id 1001 Kishore Naidu
Enter stu name Kishore Naidu
Enter 6 sub marks 99 89 90 88 90 88
Kishore Naidu id=1001, tot=544, avg=90.67 and grade Distinction
```

```
TC
Enter stu id 1002
Enter stu name bablu
Enter 6 sub marks 45 50 35 41 36 44
bablu id=1002, tot=251, avg=41.83 and grade 3rd Class
```



```
Enter stu id 1003
Enter stu name Shakeela
Enter 6 sub marks 20 10 11 25 30 36
Shakeela id=1003, tot=132, avg=22.00 and grade Failed
```

Linear search:

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 60 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i,e,f=0;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Enter search element "); scanf("%d",&e);
for(i=0;i<n;i++)
{
if(a[i]==e)printf("%d in %d cell\n",e,i+1,f=1);
}
if(f==0)printf("%d not found",e);
getch();
}
```

```
TC
Enter array size 1-100 10
Enter 10 elements 2 0 1 7 3 2 8 2 6 4
Enter search element 2
2 in 1 cell
2 in 6 cell
2 in 8 cell
_
```

```
TC
Enter array size 1-100 5
Enter 5 elements 1 2 3 4 5
Enter search element 9
9 not found_
```

```
for( i=0; i<5; i++ )
{
  if(a[i]==e)
  { 10 3
    p("%d in %d cell\n", e, i+1, f=1);
  }
}

if(f==0) p("ele not found");
```

$\frac{n}{5}$ $\frac{e}{10}$ $\frac{i}{0}$ $\frac{f}{0}$

1

2+1=3

20

a

2	7	10	4	1
0	1	2	3	4

Selection sort:

2	7	1	4	3
<u>1</u>	7	2	4	3
1	<u>2</u>	7	4	3
1	2	<u>4</u>	7	3
1	2	3	<u>7</u>	4
1	2	3	4	<u>7</u>

L	R
<u>i</u>	<u>j</u>
0	1, 2, 3, 4
1	2, 3, 4
2	3, 4
3	4

