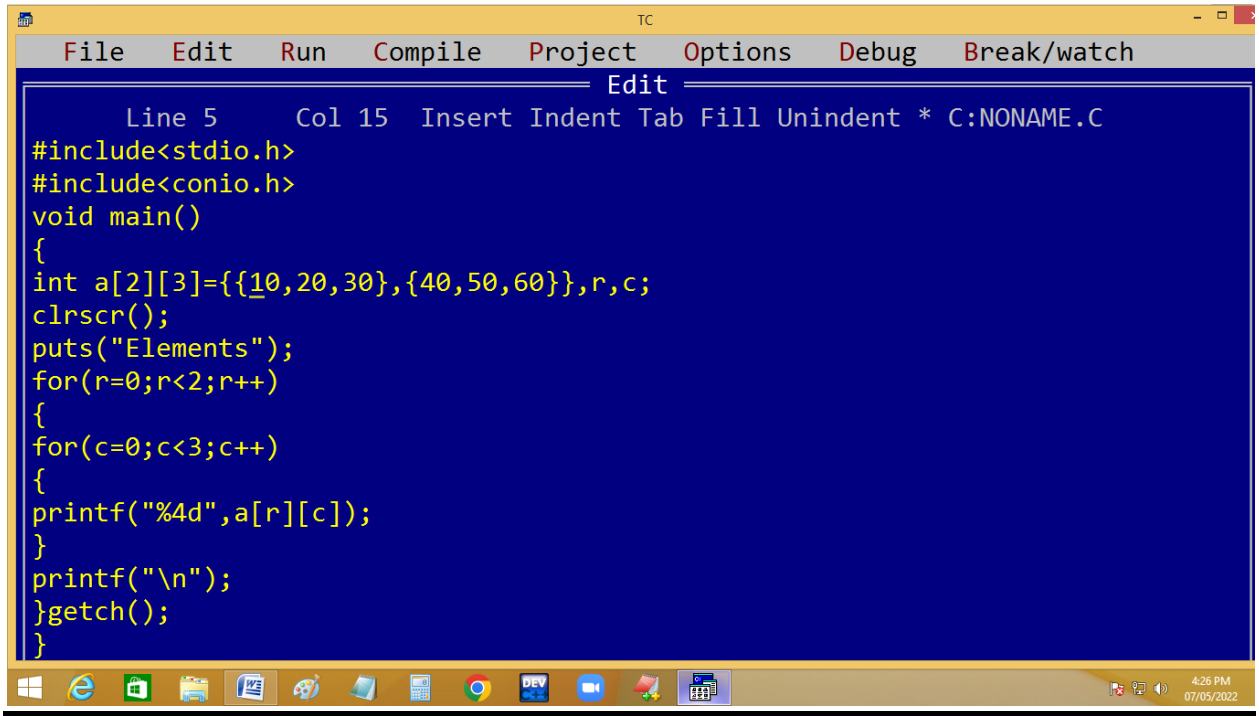
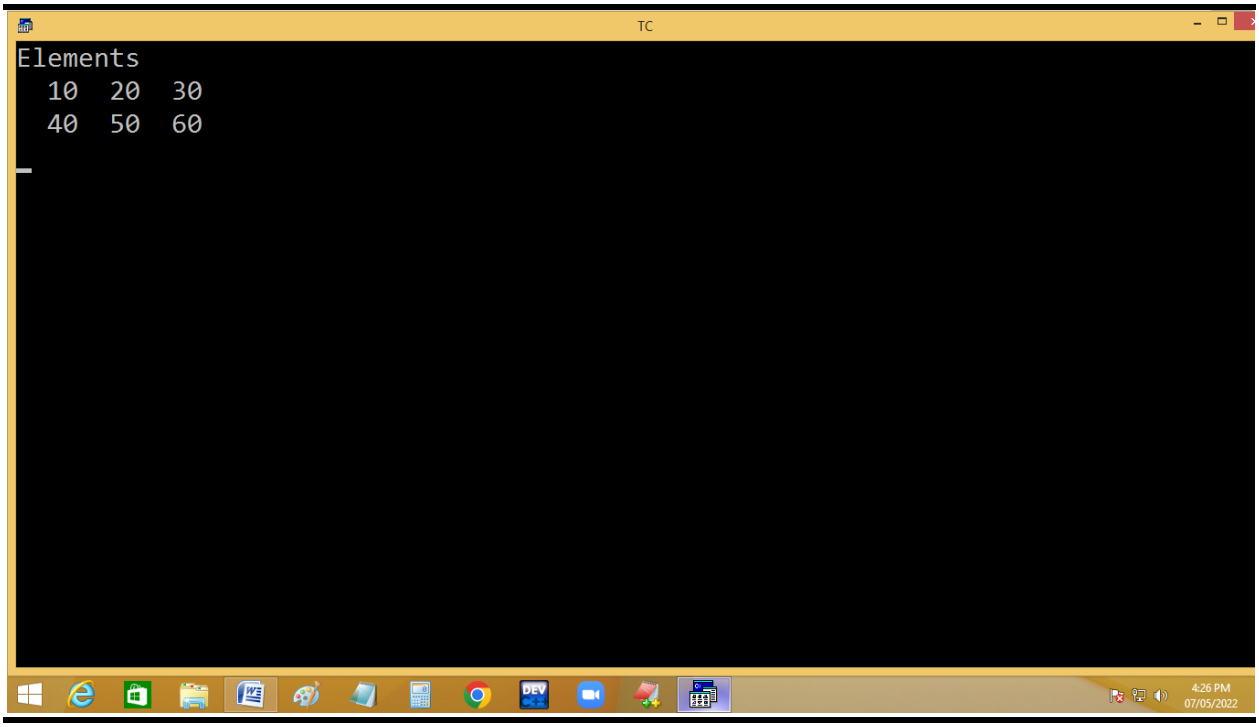
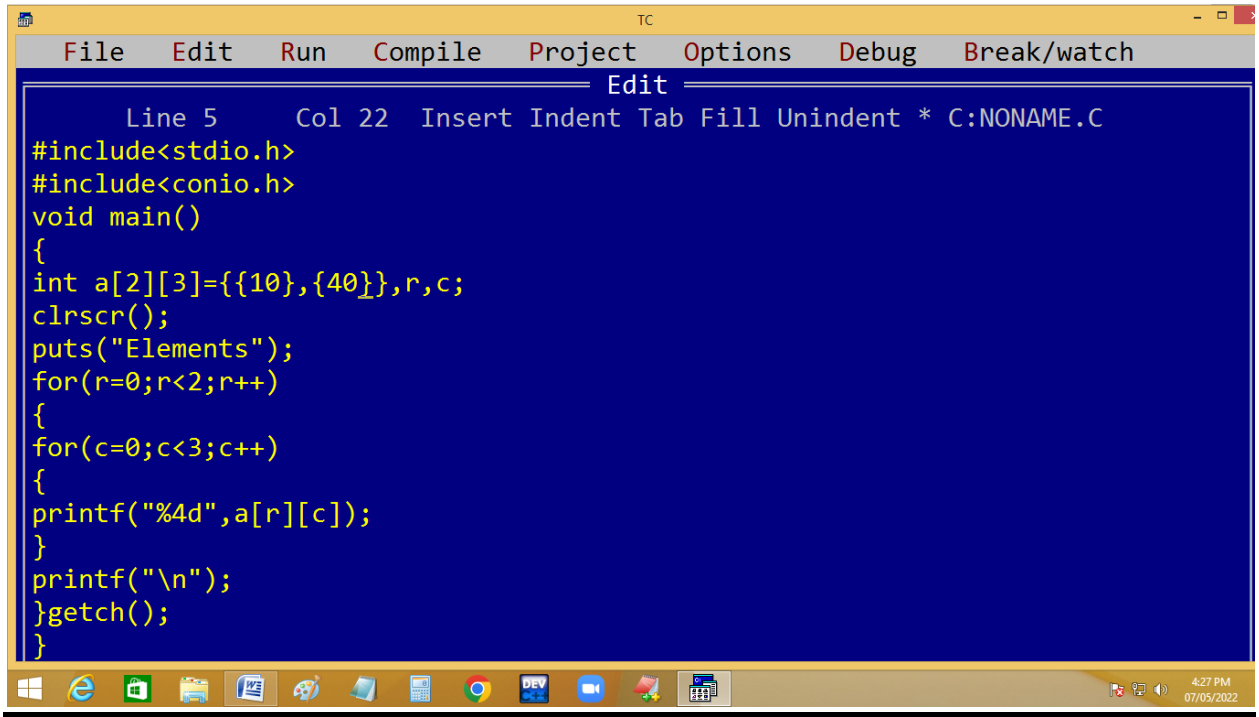
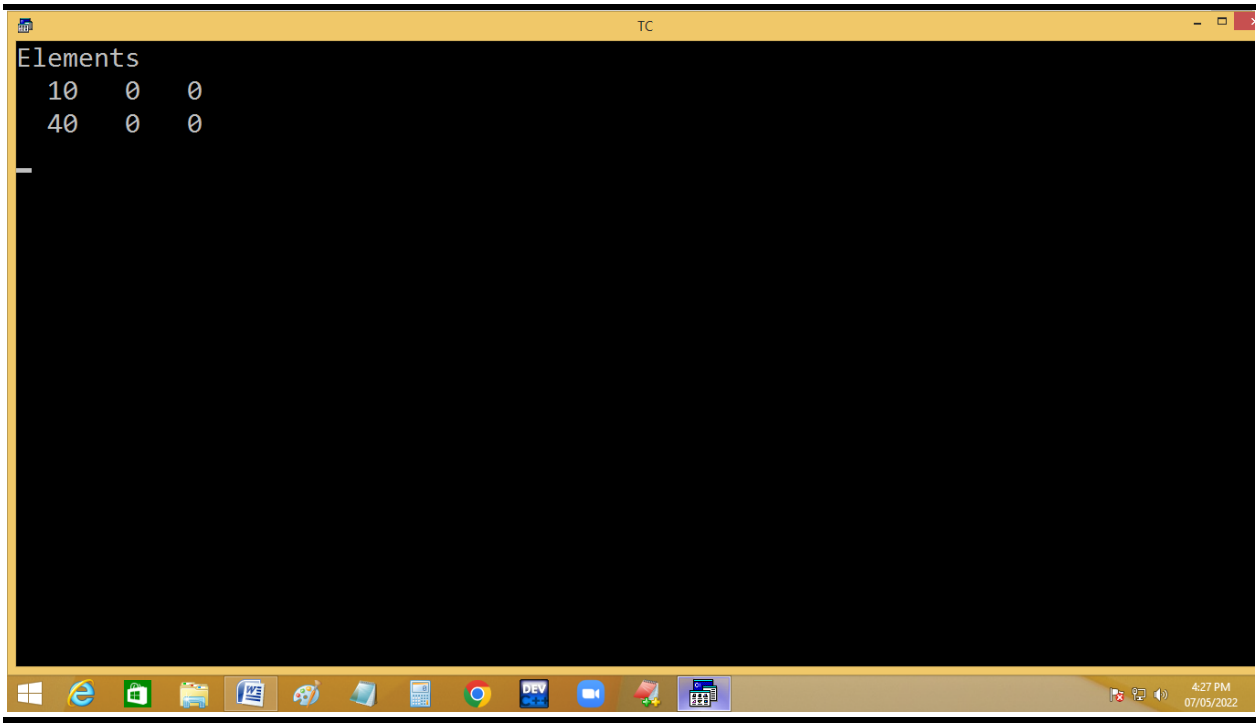
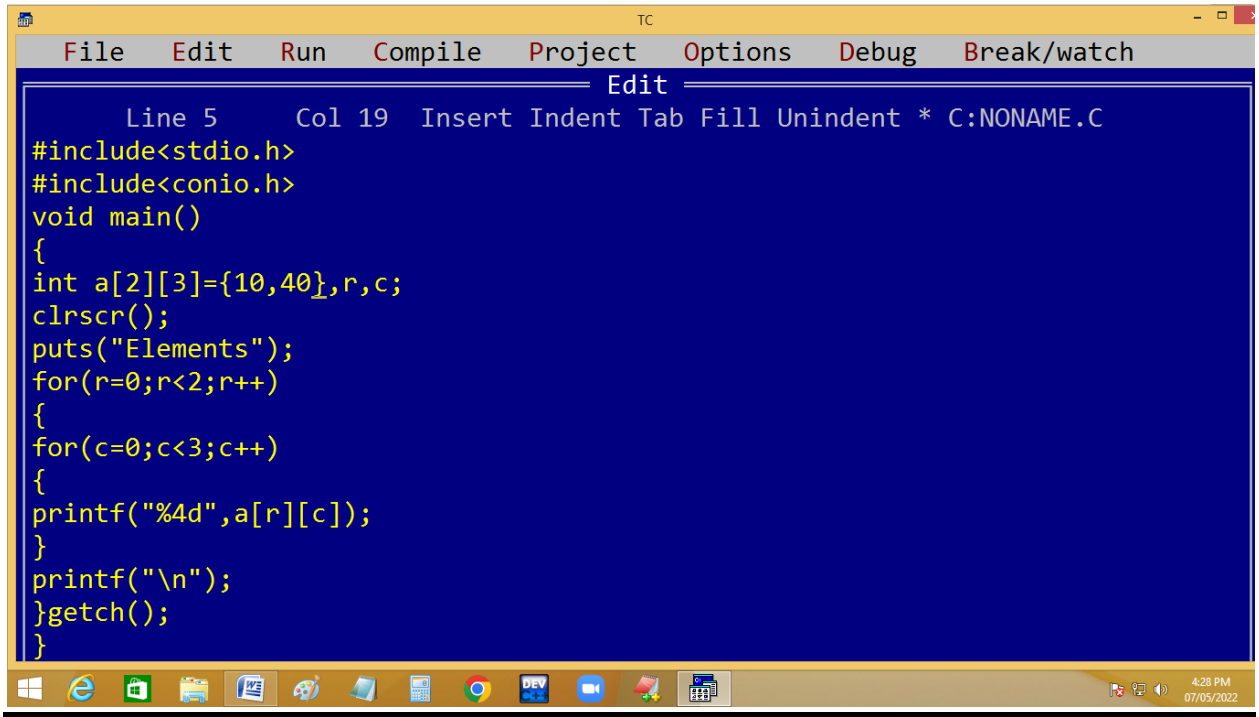
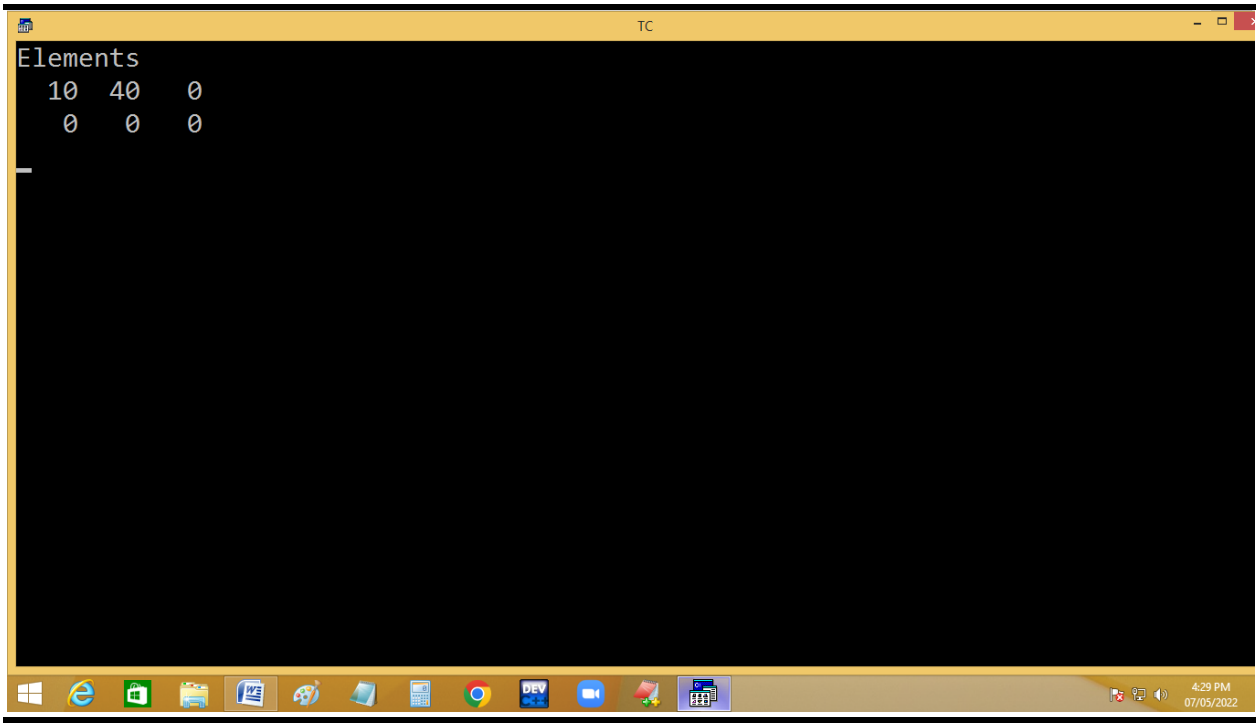

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 5 Col 15 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10,20,30},{40,50,60}},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

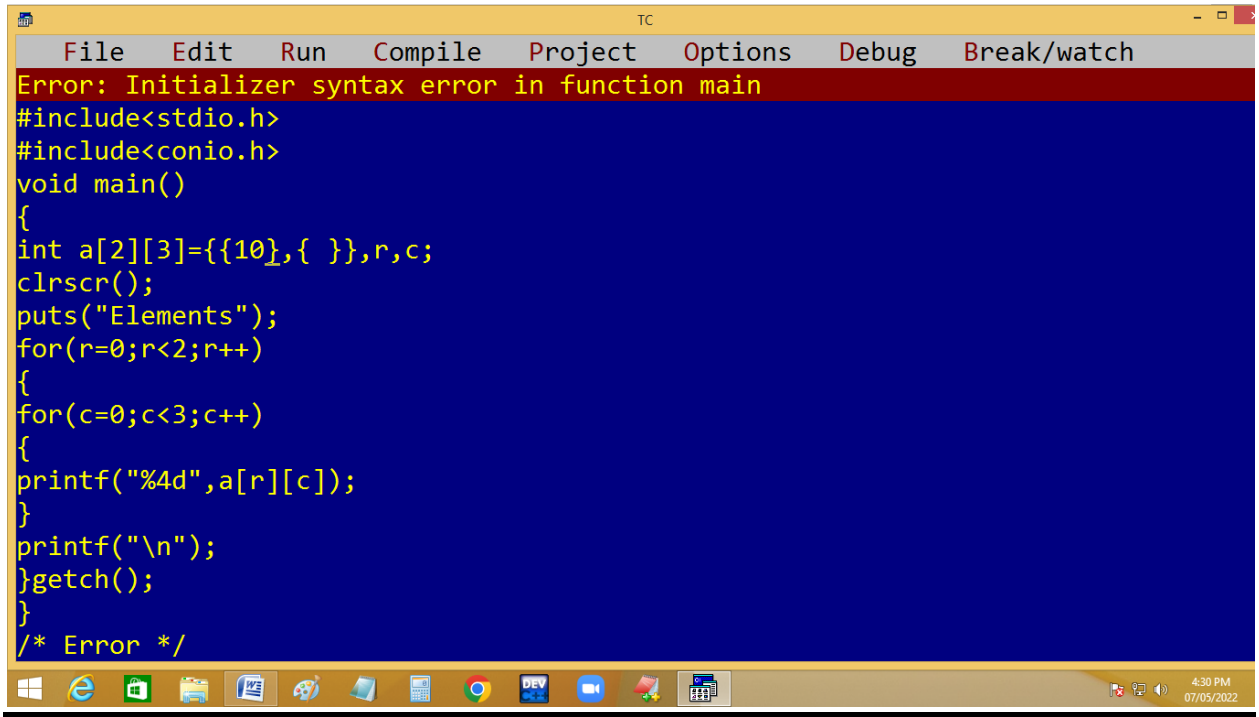

TC
Elements
10 20 30
40 50 60

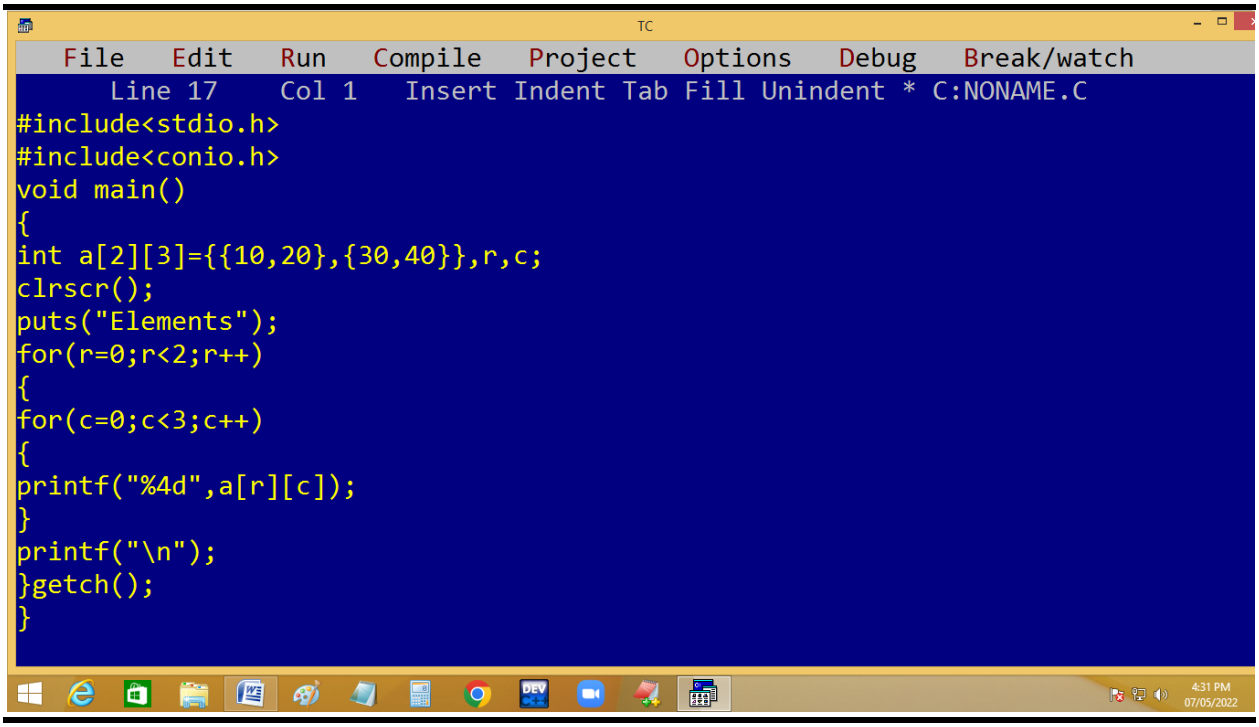

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 5 Col 22 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10},{40}},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

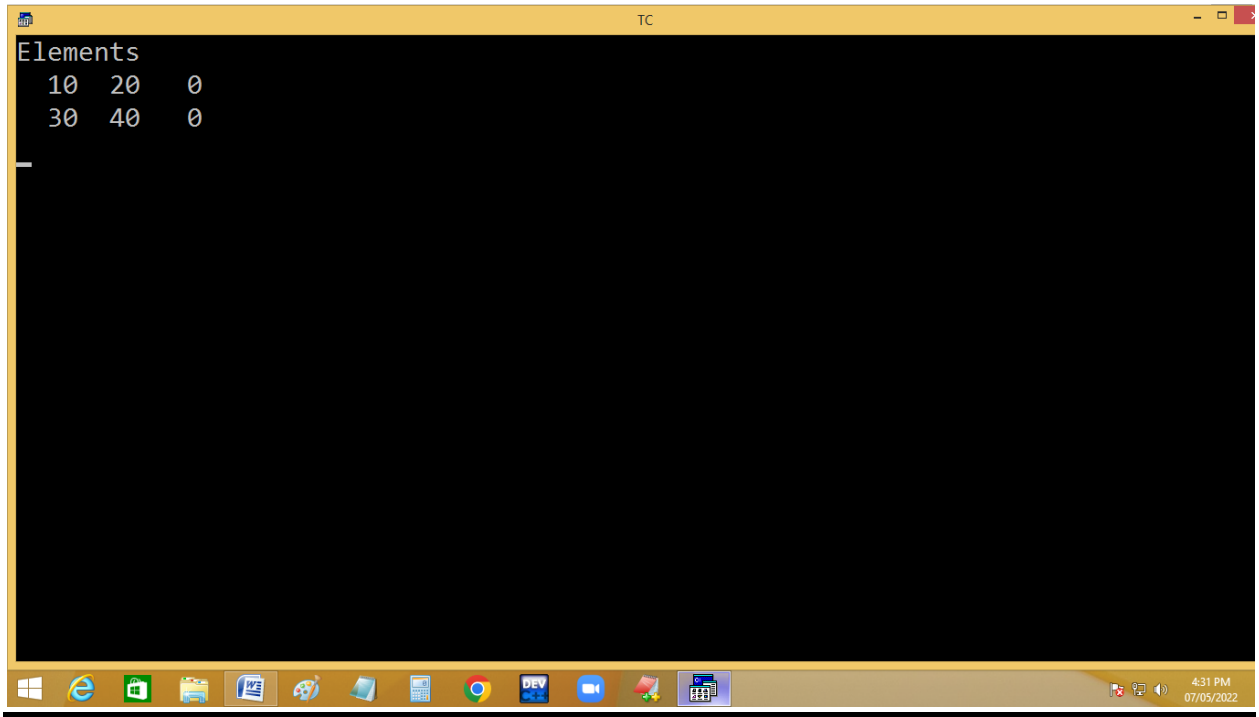

TC
Elements
10 0 0
40 0 0

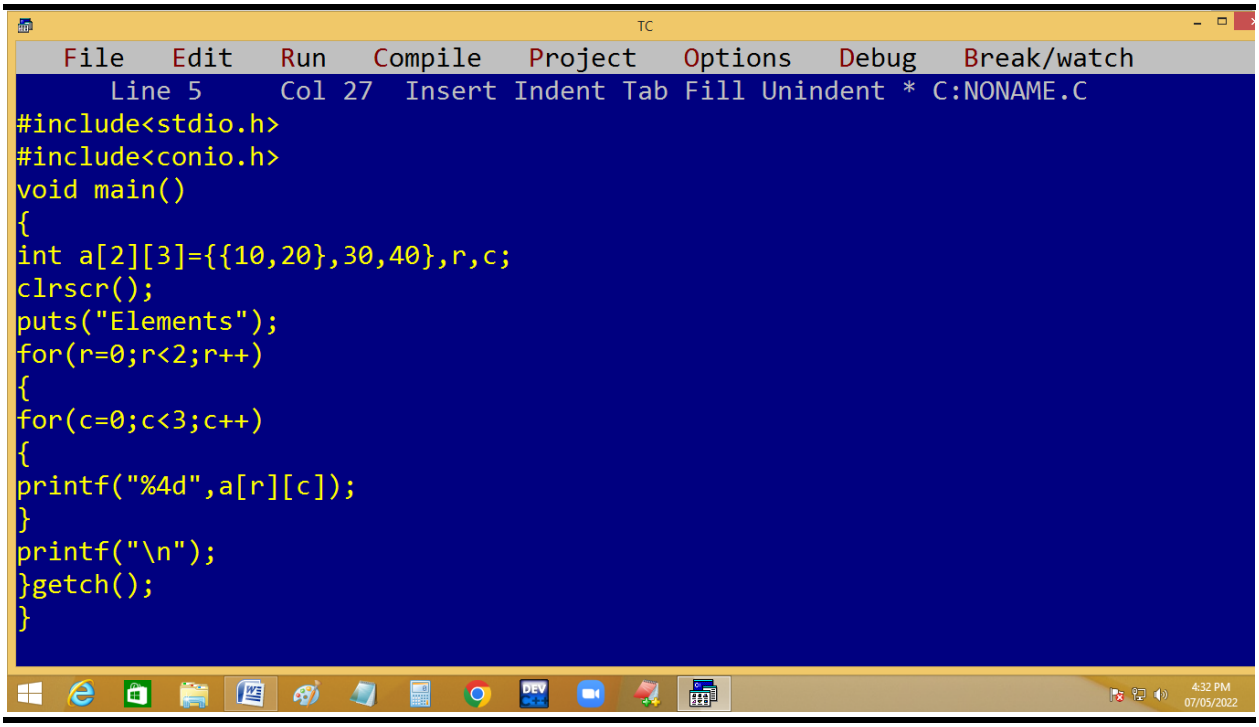

TC
File Edit Run Compile Project Options Debug Break/watch
Edit
Line 5 Col 19 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={10,40},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

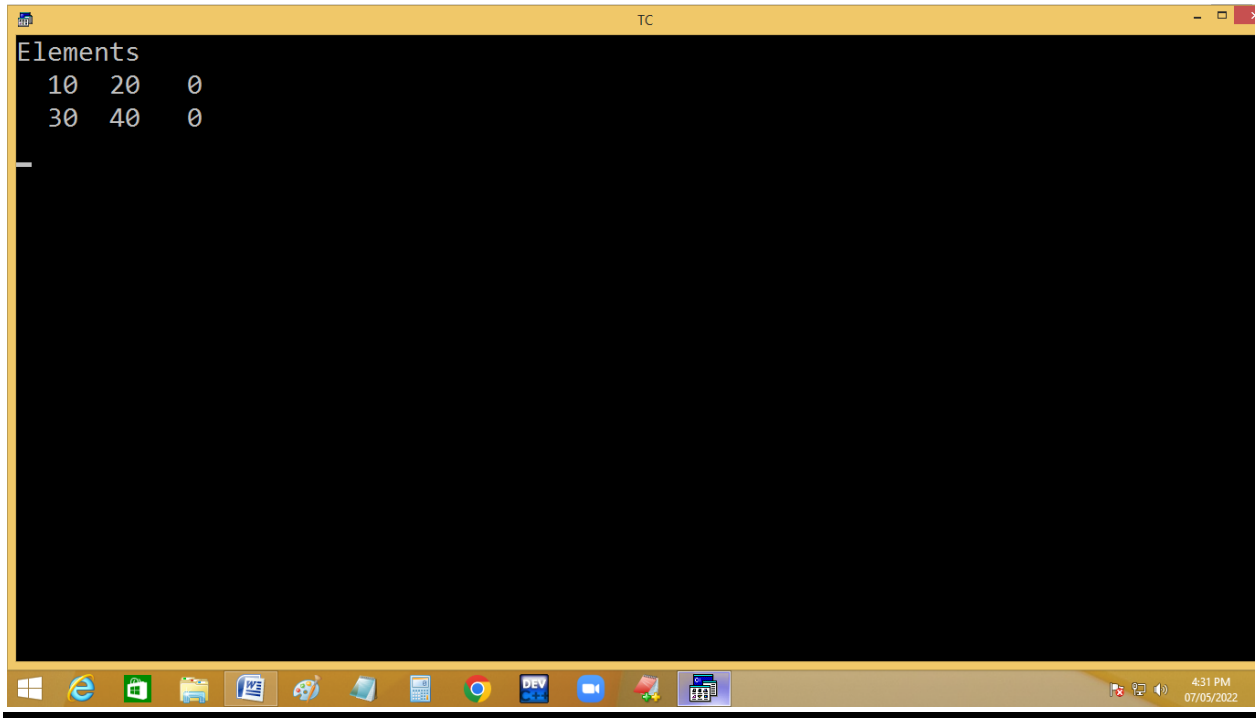

TC
Elements
10 40 0
0 0 0

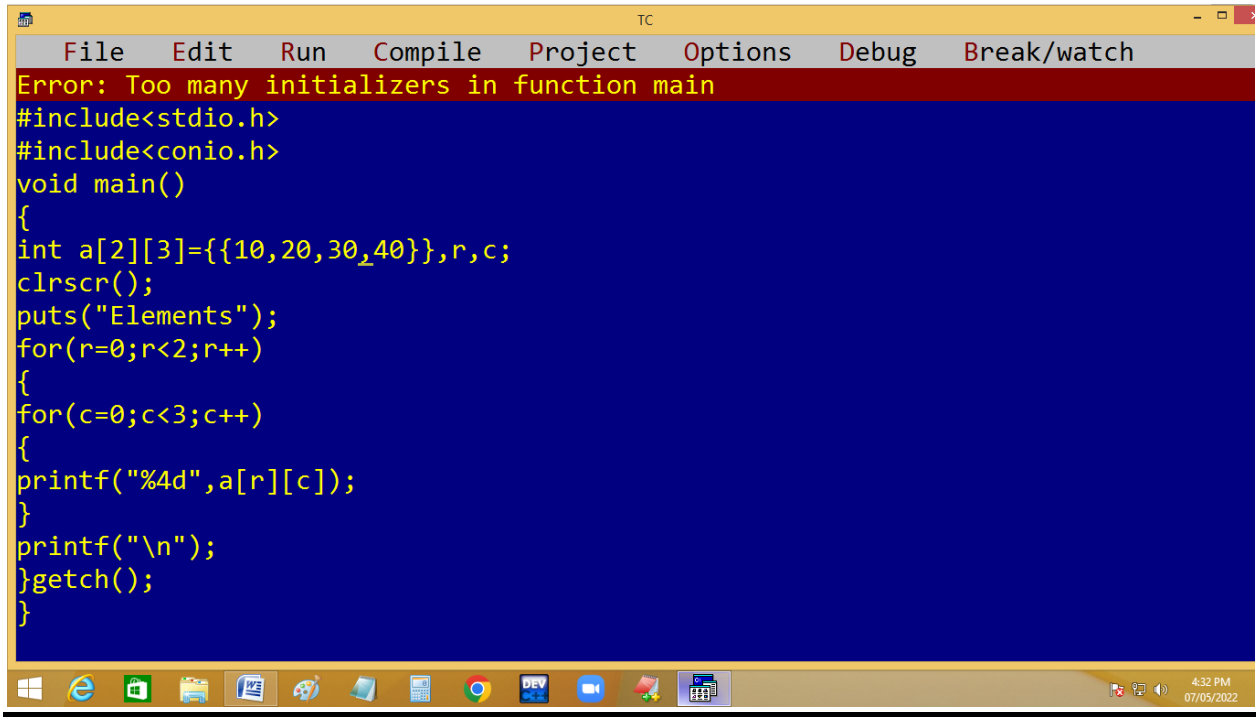

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Initializer syntax error in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10},{ }},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}
/* Error */
4:30 PM
07/05/2022

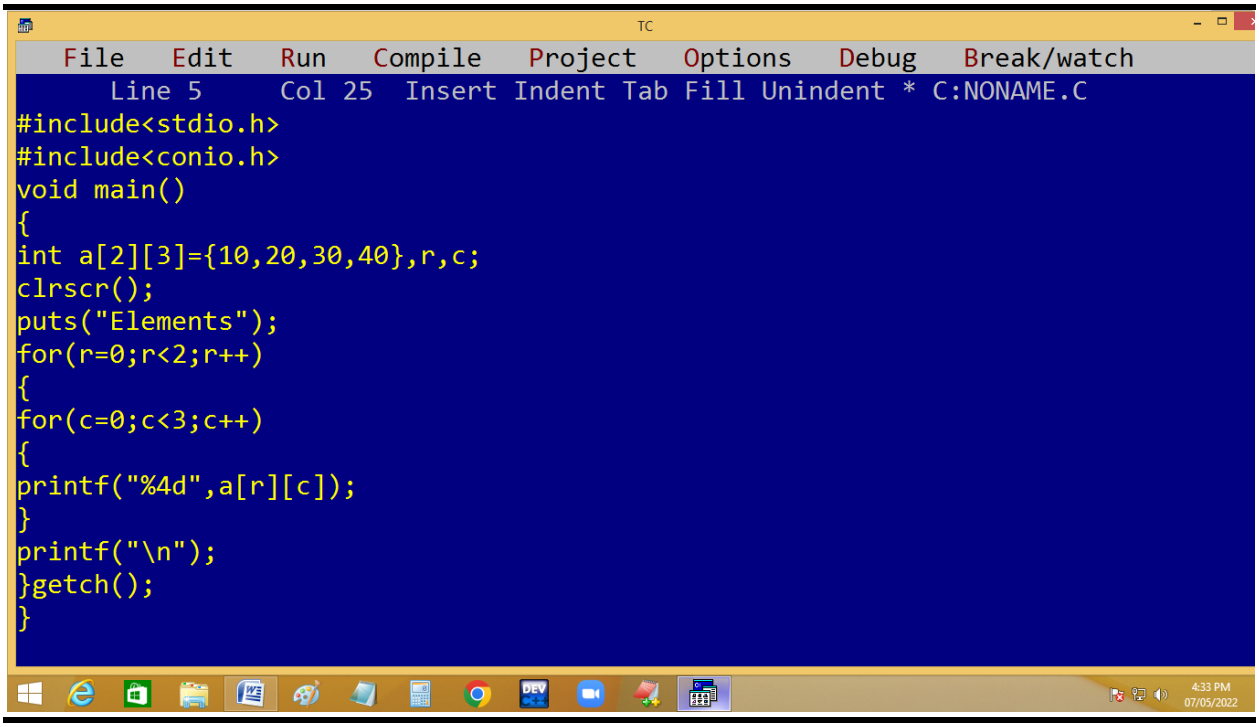

TC
File Edit Run Compile Project Options Debug Break/watch
Line 17 Col 1 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10,20},{30,40}},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}
4:31 PM
07/05/2022

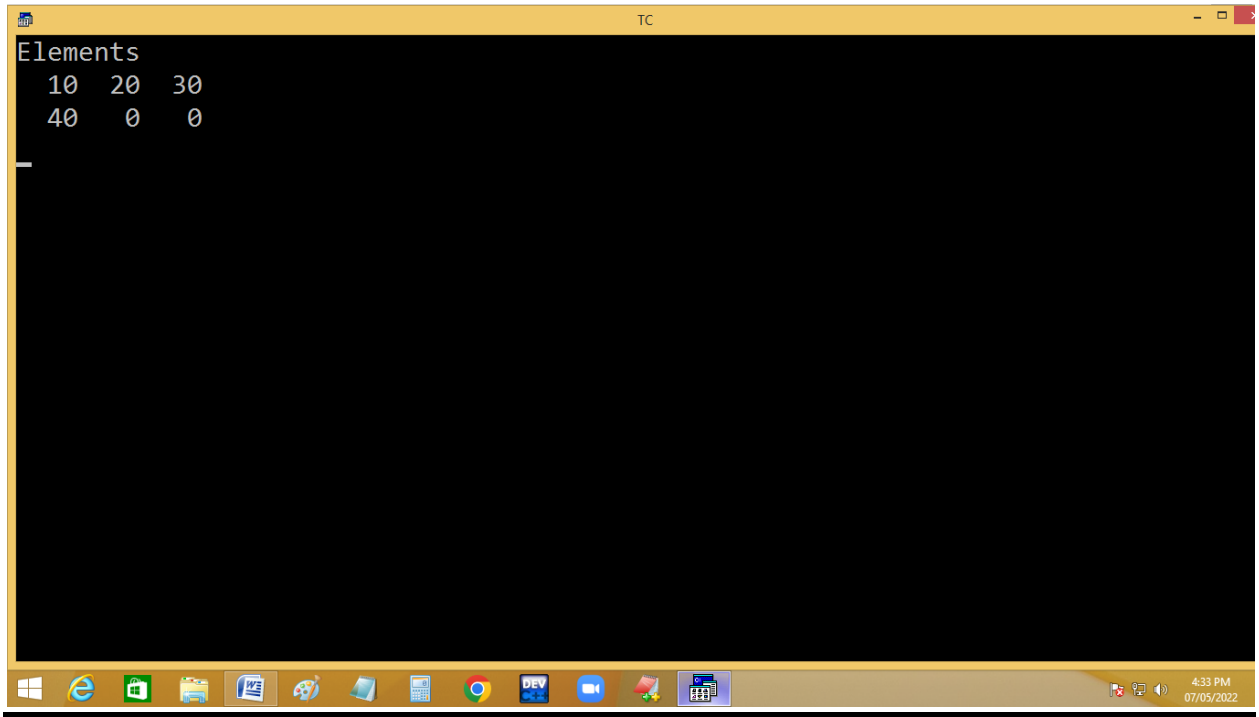

TC
Elements
10 20 0
30 40 0
4:31 PM
07/05/2022

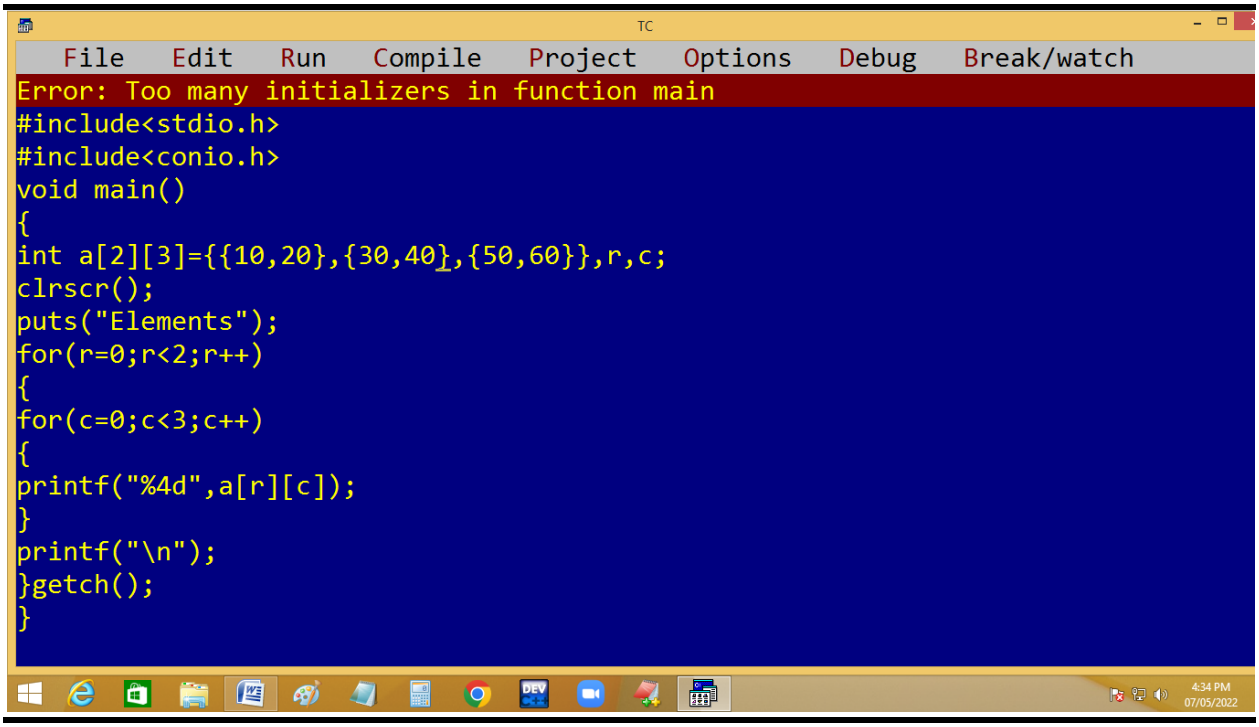

TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 27 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10,20},30,40},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}
4:32 PM
07/05/2022

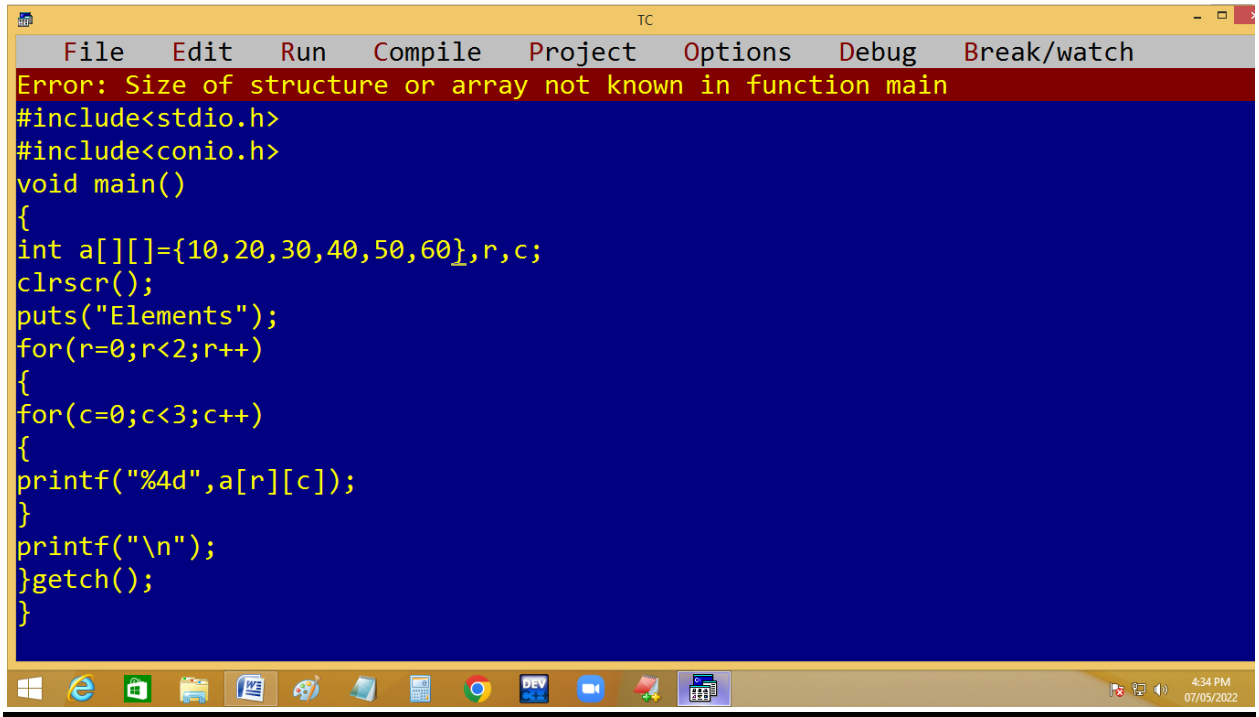

TC
Elements
10 20 0
30 40 0
4:31 PM
07/05/2022

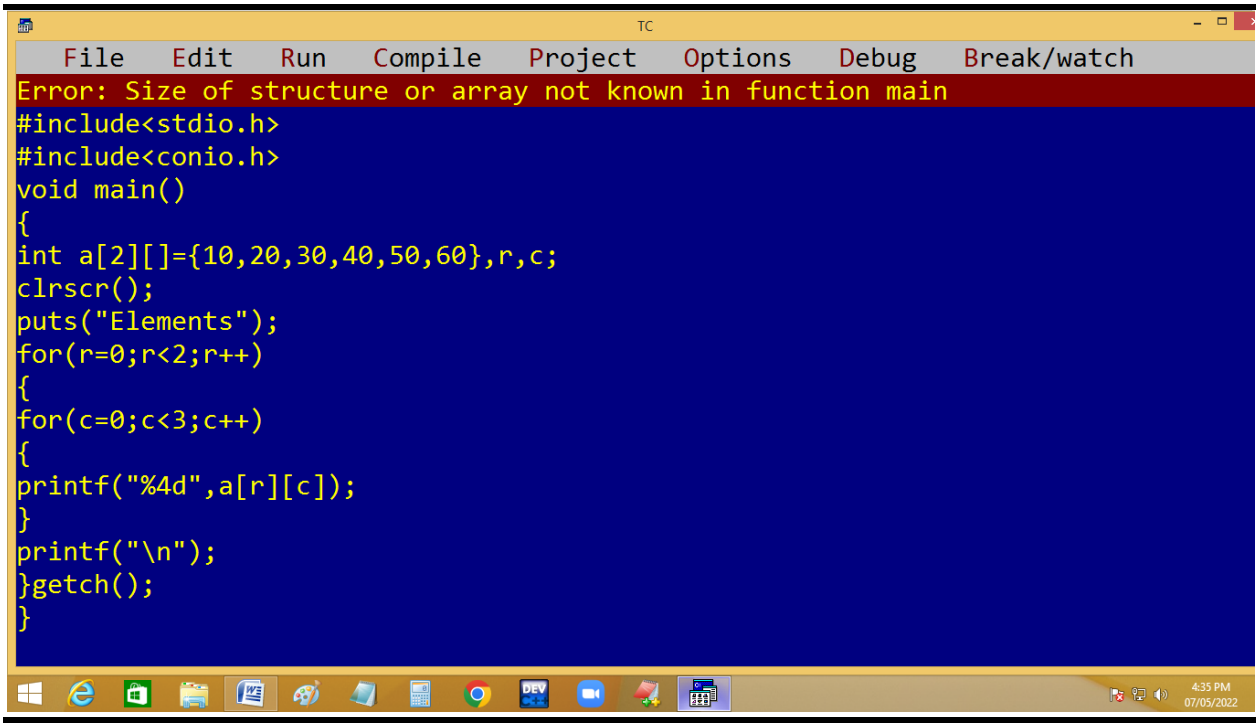

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Too many initializers in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10,20,30,40}},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

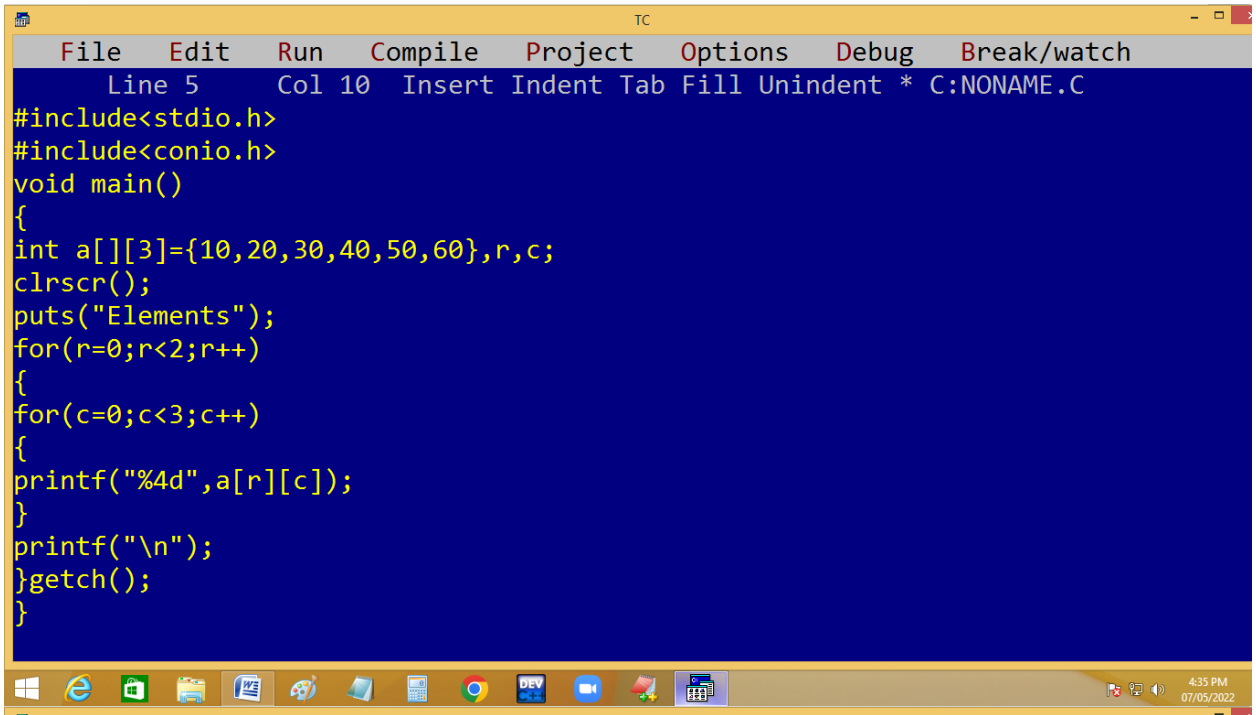

TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 25 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={10,20,30,40},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}


TC
Elements
10 20 30
40 0 0

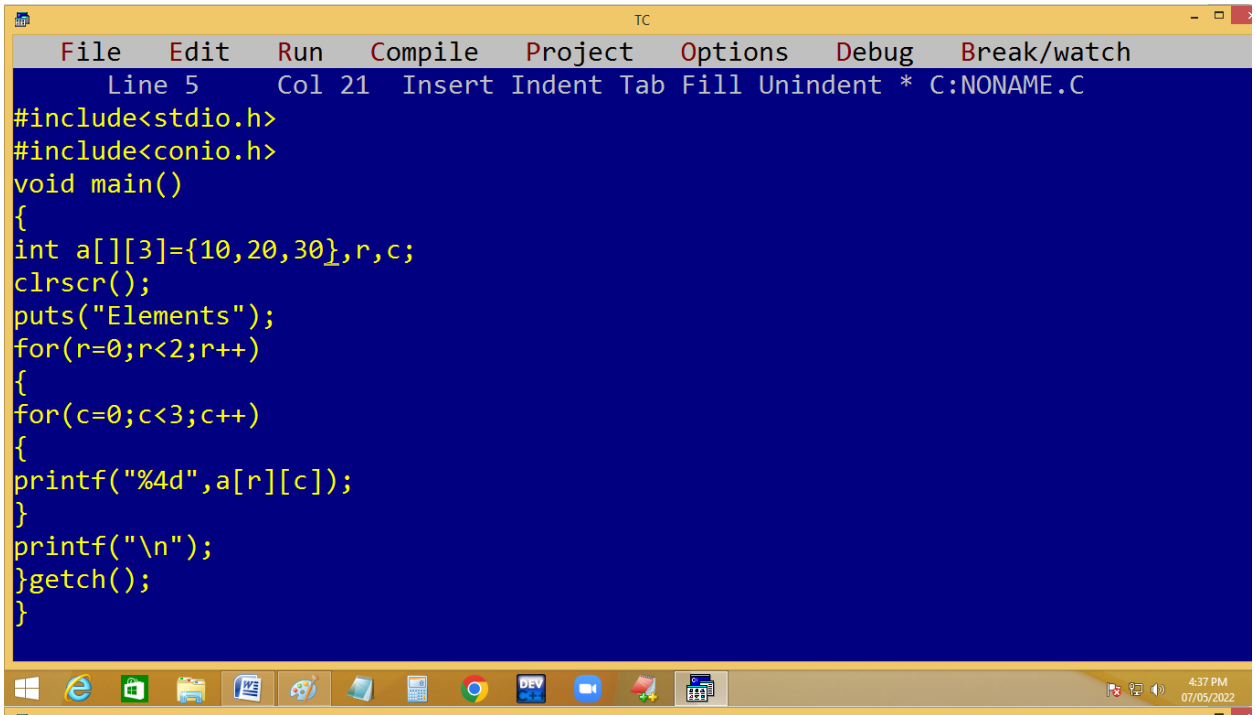

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Too many initializers in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={{10,20},{30,40},{50,60}},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

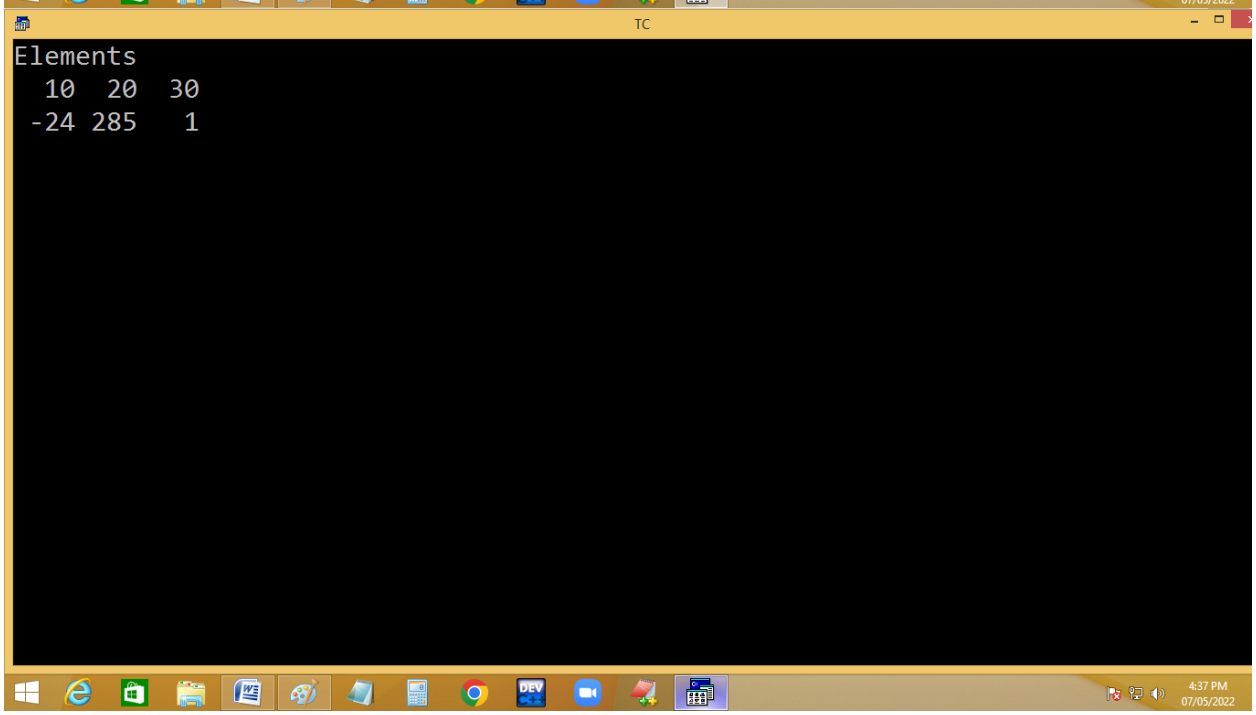

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Size of structure or array not known in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[][]={10,20,30,40,50,60},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

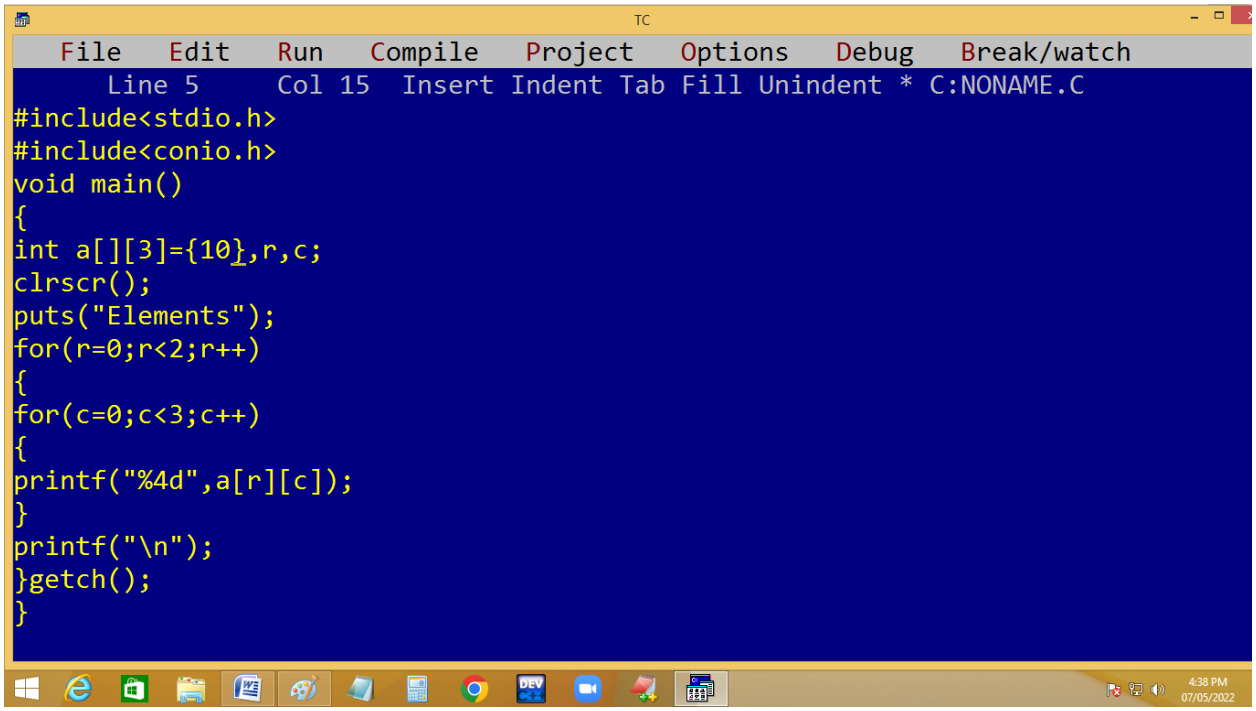

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Size of structure or array not known in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][]={10,20,30,40,50,60},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}


TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 10 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[][3]={10,20,30,40,50,60},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}


TC
Elements
10 20 30
40 50 60


TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 21 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[][3]={10,20,30},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

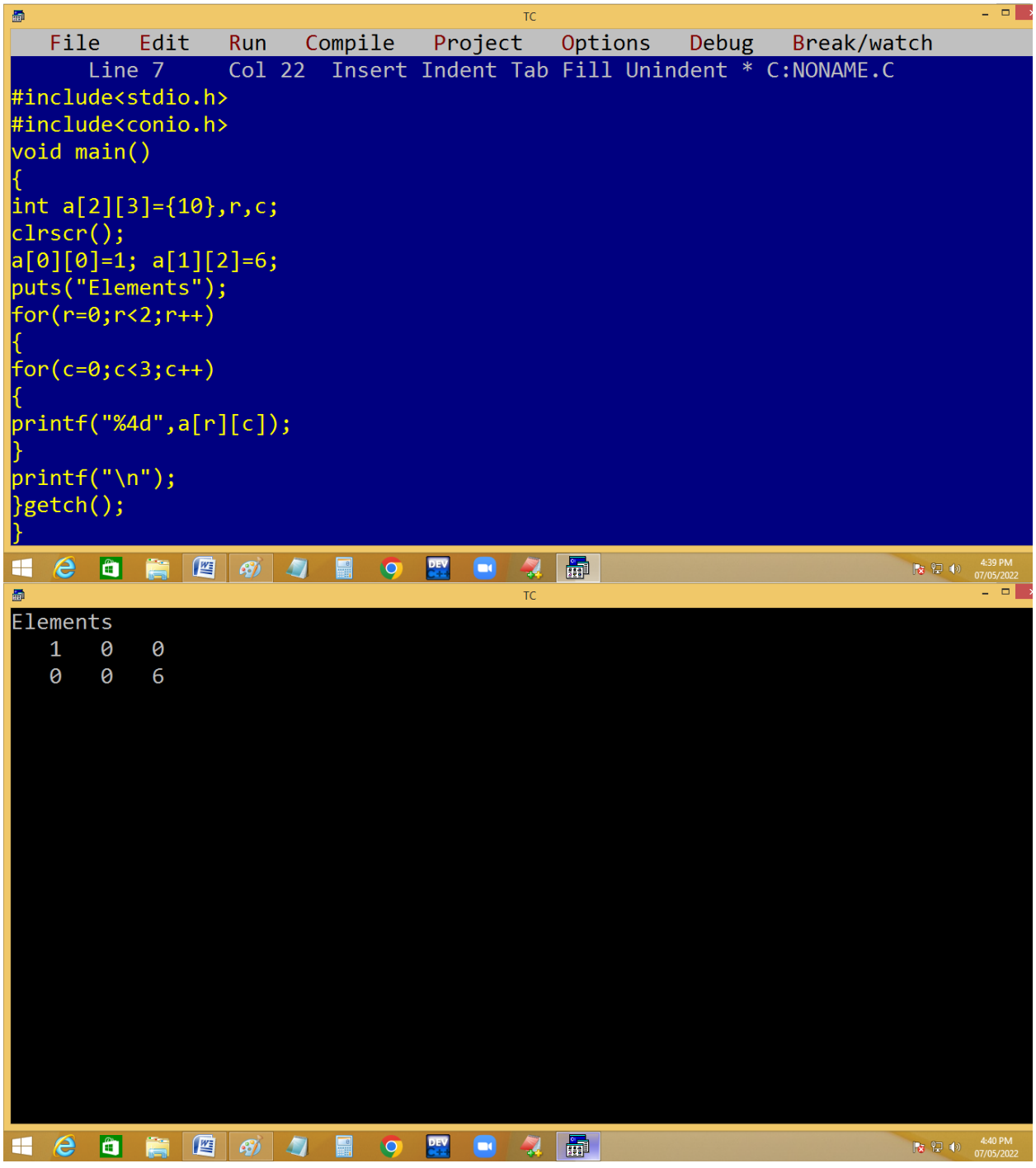

TC
Elements
10 20 30
-24 285 1

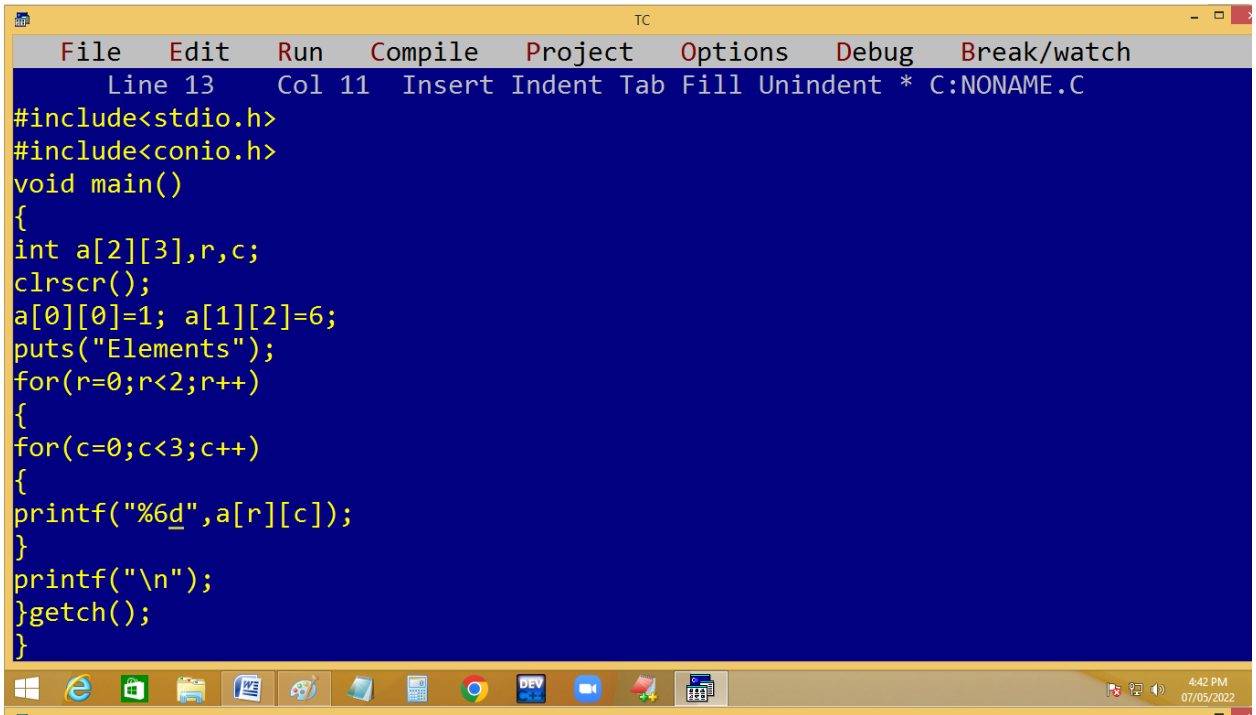

TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 15 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[][3]={10},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}

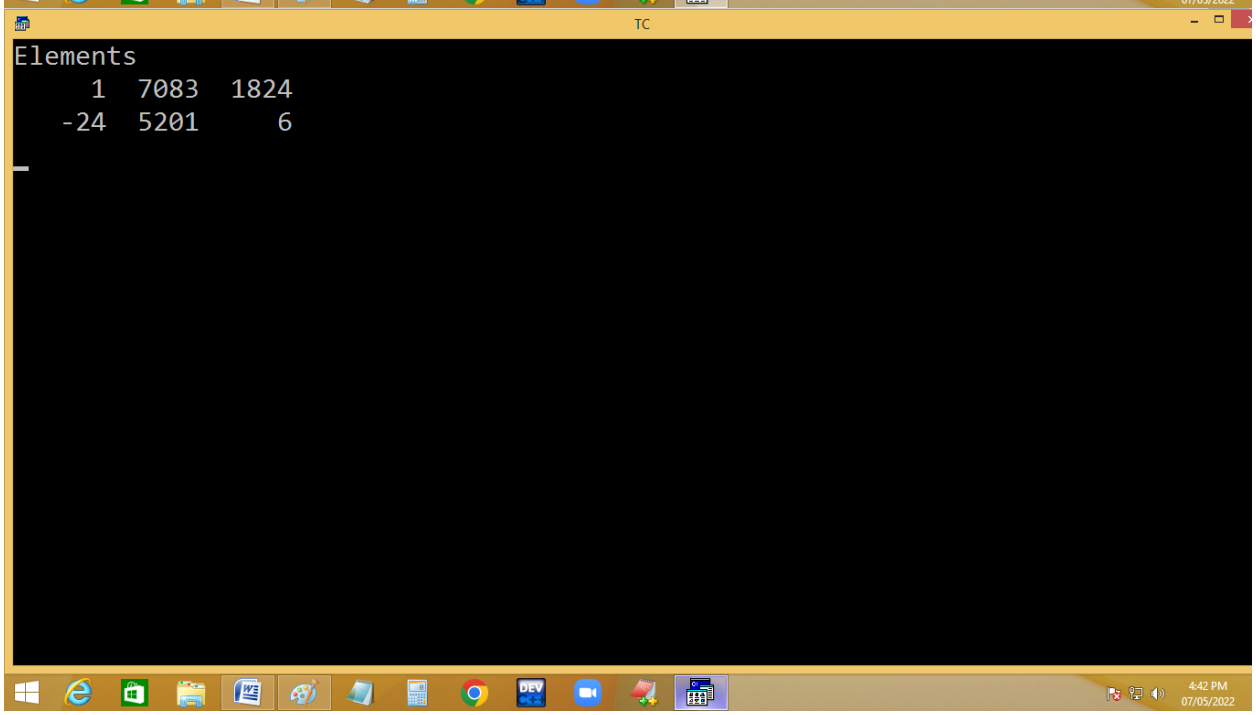
Output:

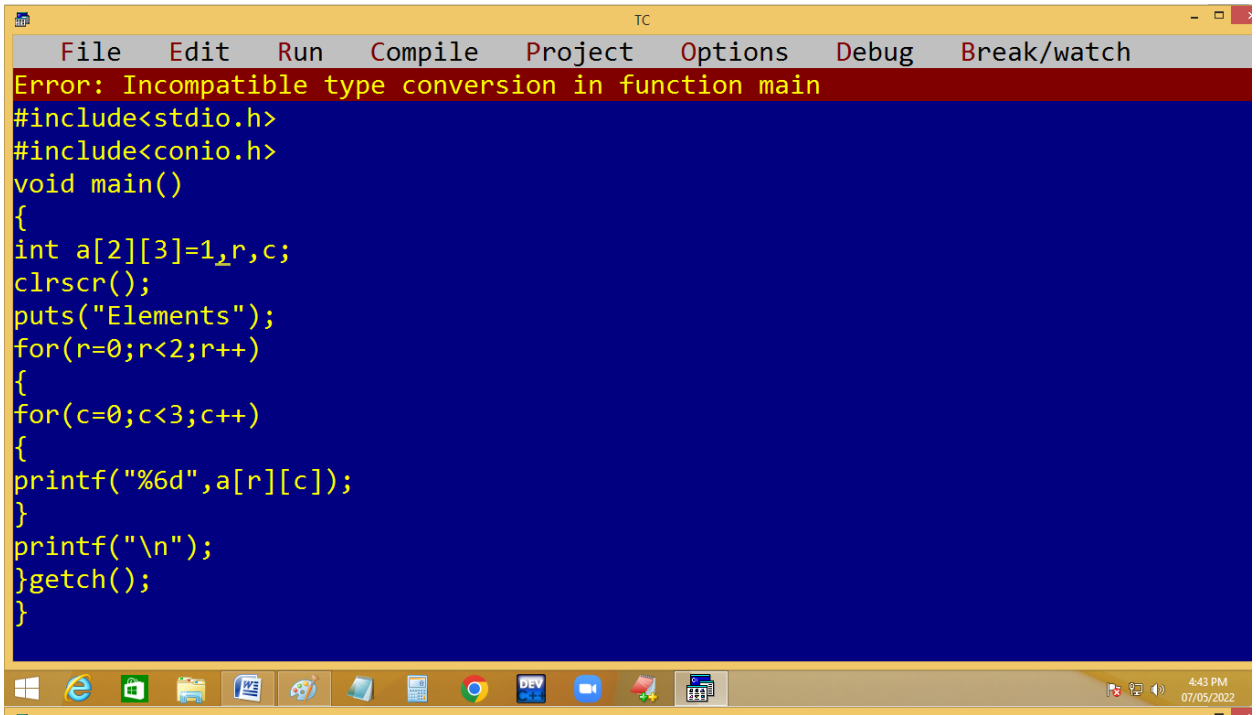
10 0 0

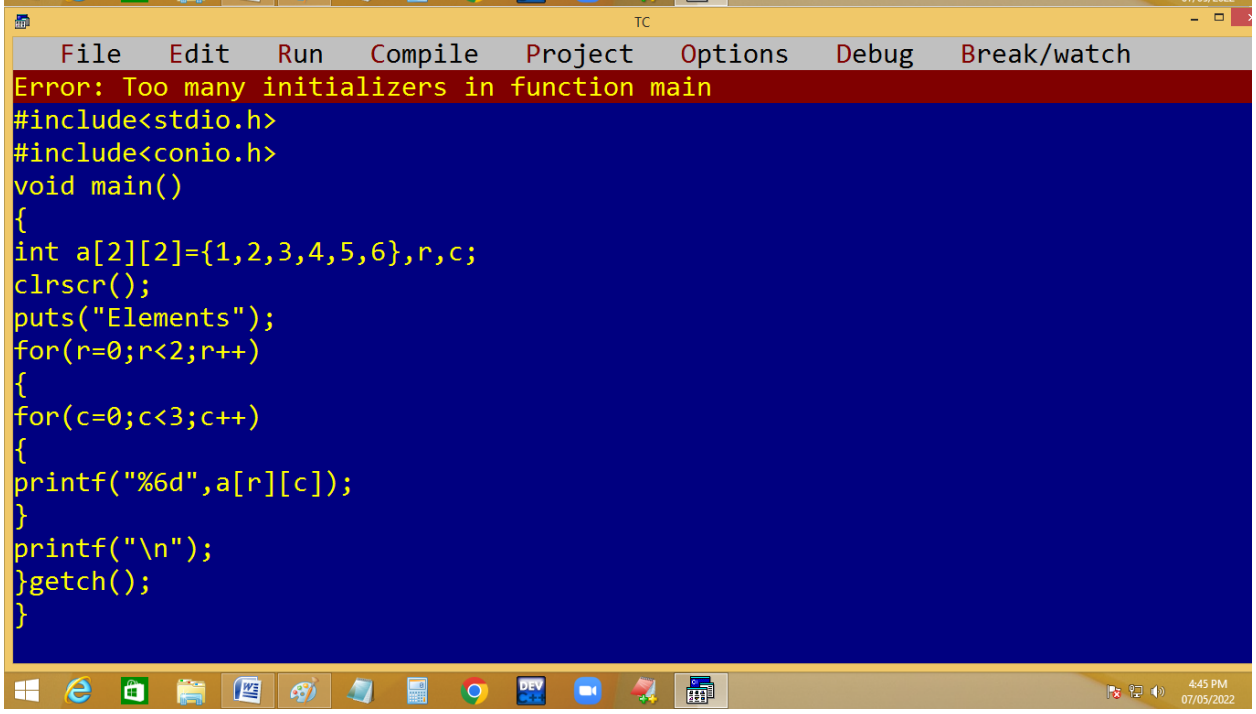
Gr gr gr

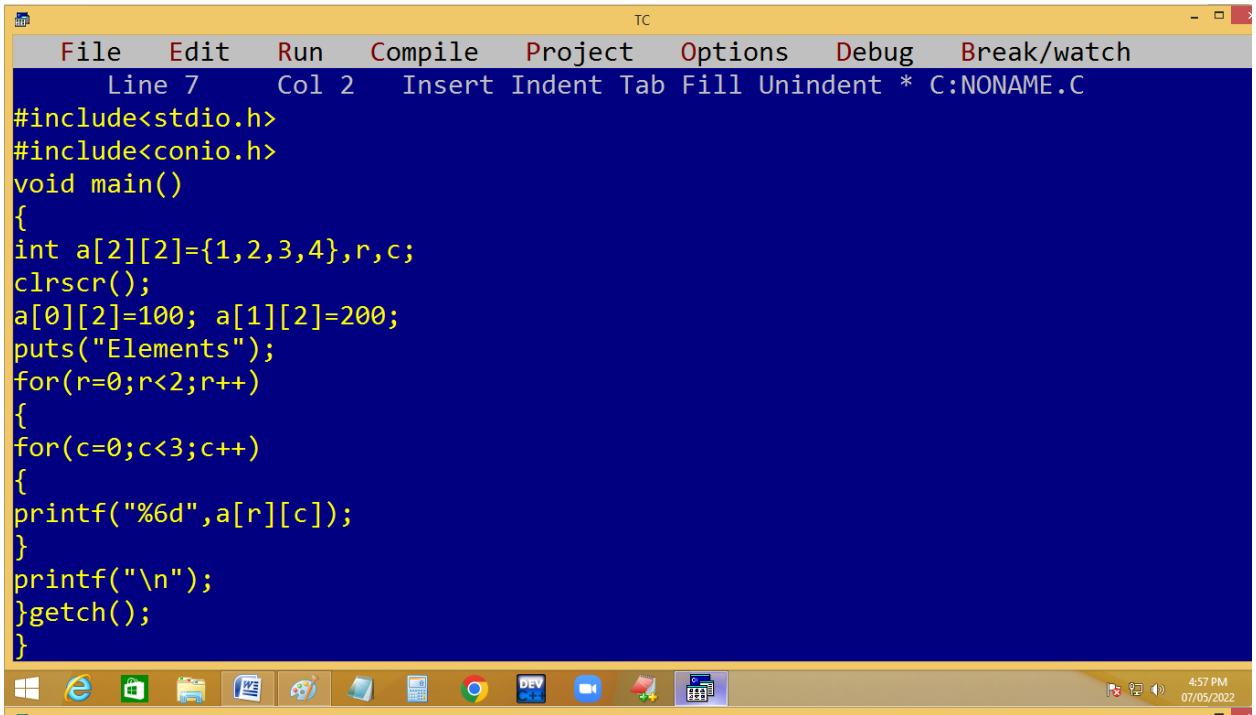

TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 22 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]={10},r,c;
clrscr();
a[0][0]=1; a[1][2]=6;
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%4d",a[r][c]);
}
printf("\n");
}getch();
}
4:39 PM
07/05/2022
TC
Elements
1 0 0
0 0 6
4:40 PM
07/05/2022

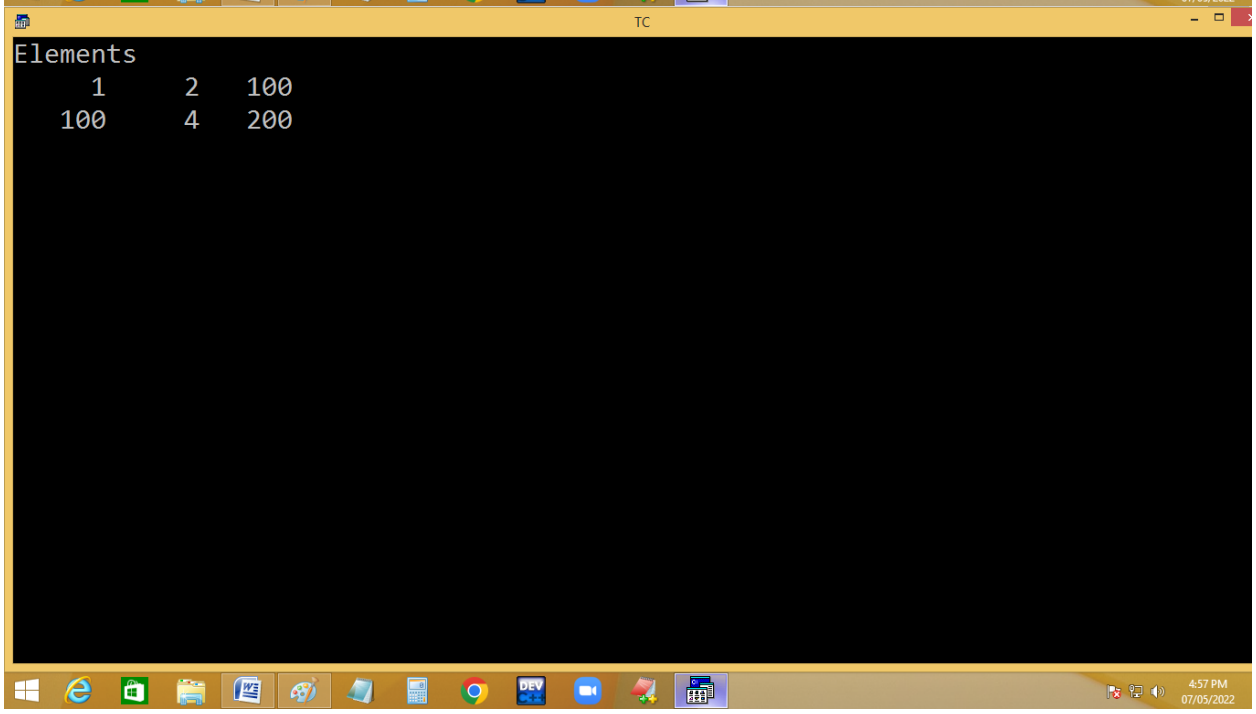

TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 11 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3],r,c;
clrscr();
a[0][0]=1; a[1][2]=6;
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%6d",a[r][c]);
}
printf("\n");
}getch();
}

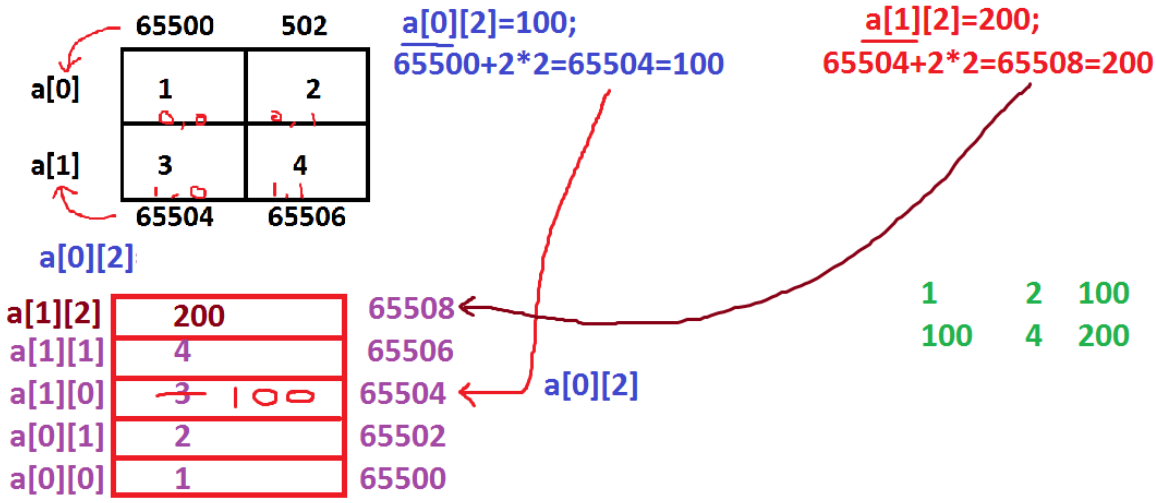

TC
Elements
1 7083 1824
-24 5201 6

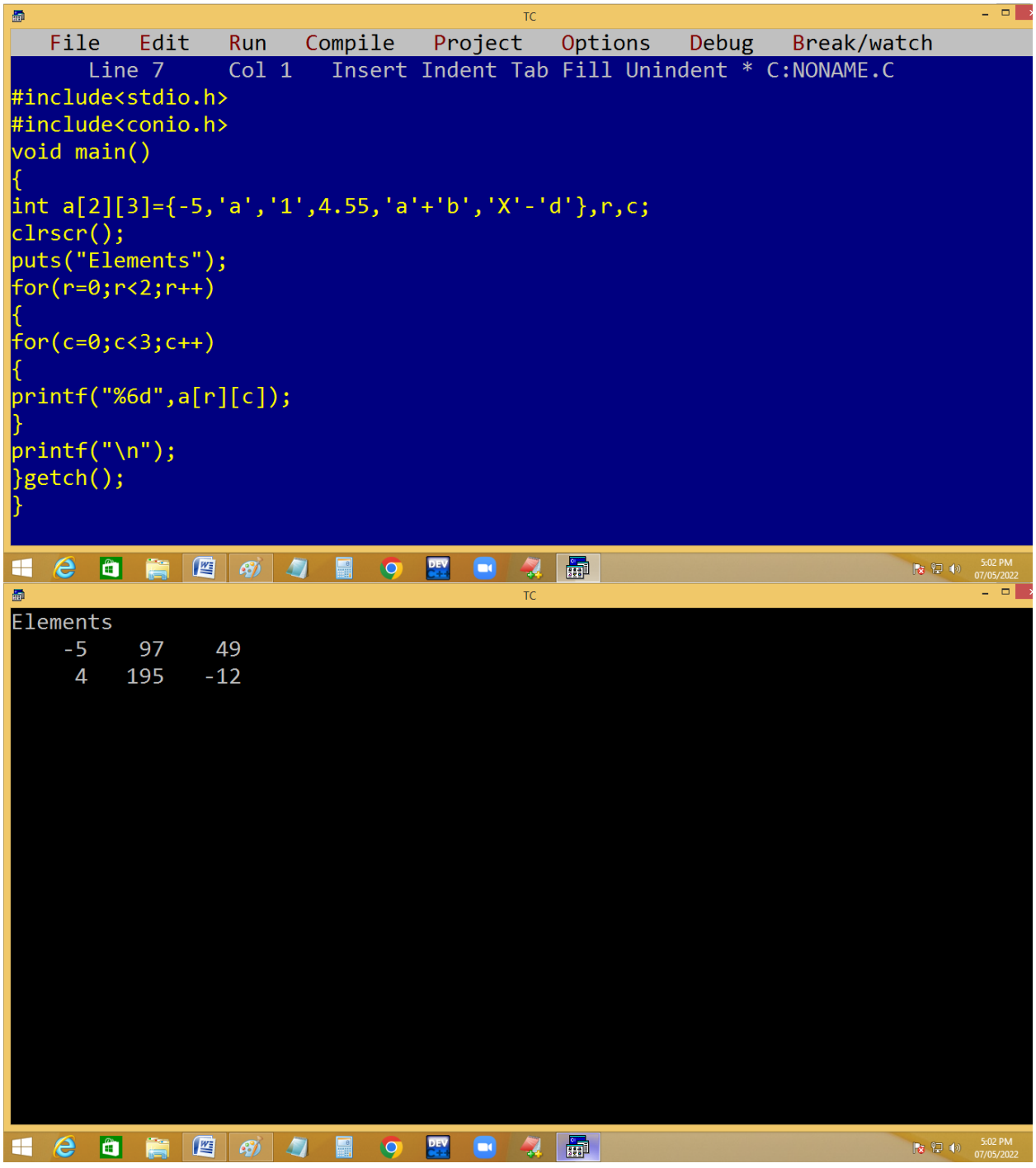

TC
File Edit Run Compile Project Options Debug Break/watch
Error: Incompatible type conversion in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][3]=1,r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%6d",a[r][c]);
}
printf("\n");
}getch();
}
4:43 PM
07/05/2022


TC
File Edit Run Compile Project Options Debug Break/watch
Error: Too many initializers in function main
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][2]={1,2,3,4,5,6},r,c;
clrscr();
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%6d",a[r][c]);
}
printf("\n");
}getch();
}
4:45 PM
07/05/2022

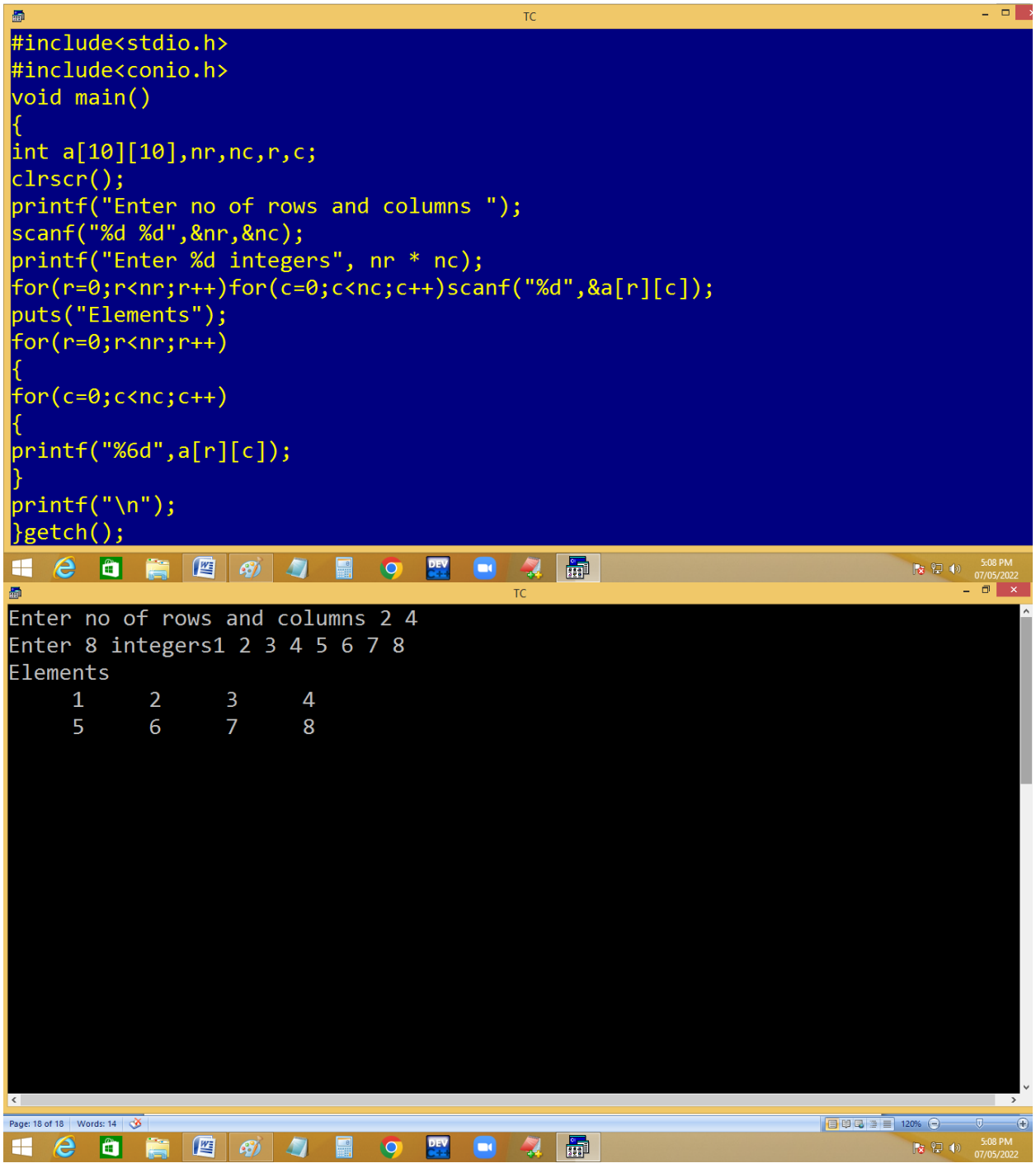

TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 2 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[2][2]={1,2,3,4},r,c;
clrscr();
a[0][2]=100; a[1][2]=200;
puts("Elements");
for(r=0;r<2;r++)
{
for(c=0;c<3;c++)
{
printf("%6d",a[r][c]);
}
printf("\n");
}getch();
}

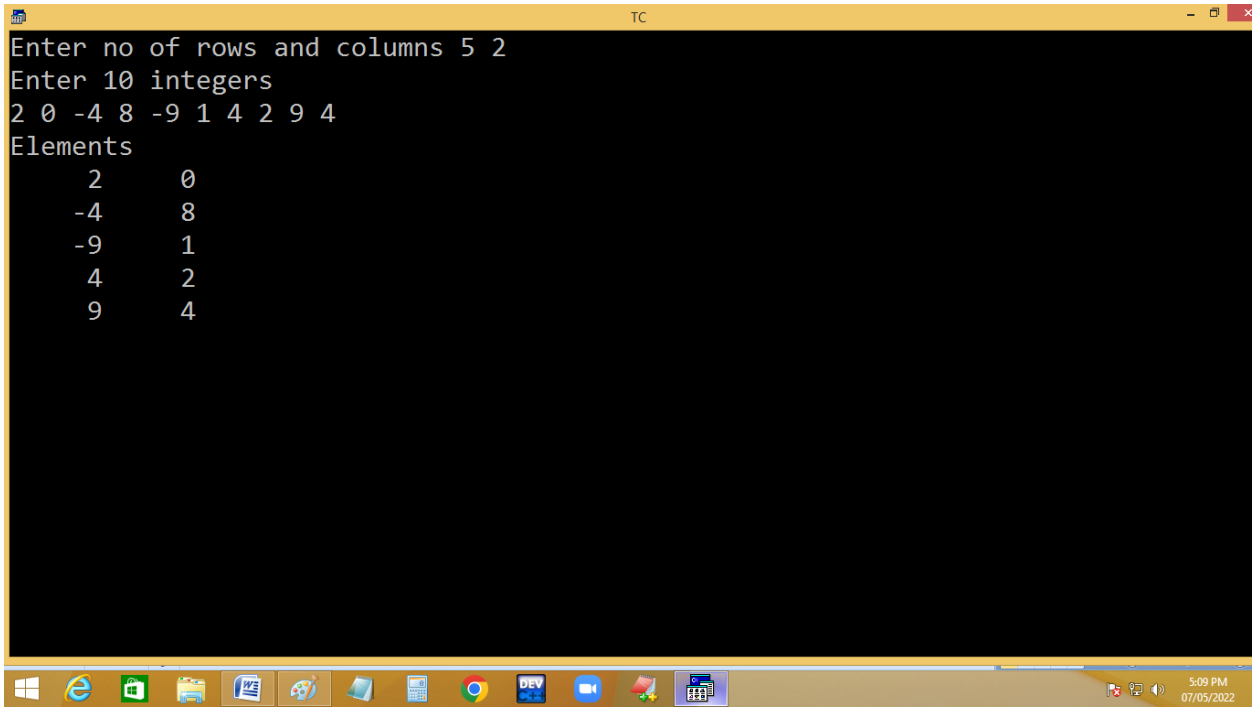

TC
Elements
1 2 100
100 4 200


65500
502
a[0]
1
2
a[1]
3
4
65504
65506
a[0][2]
a[0][2]=100;
65500+2*2=65504=100
a[1][2]=200;
65504+2*2=65508=200
a[1][2]
200
a[1][1]
4
a[1][0]
3
100
a[0][1]
2
a[0][0]
1
65508
65506
65504
65502
65500
a[0][2]
1 2 100
100 4 200



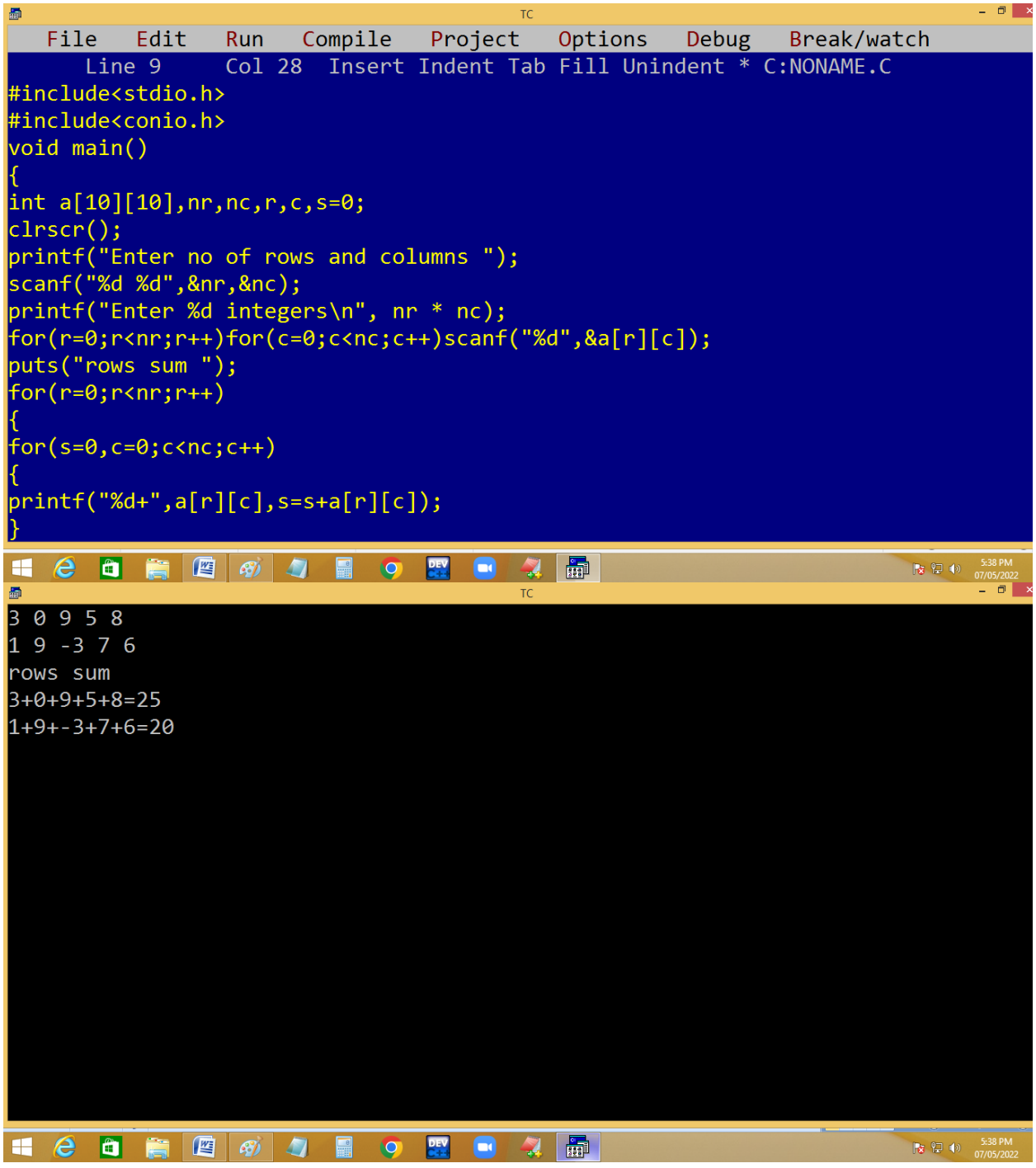
Reading and printing elements of n*n matrix.


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int a[10][10],nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns ");
scanf("%d %d",&nr,&nc);
printf("Enter %d integers", nr * nc);
for(r=0;r<nr;r++)for(c=0;c<nc;c++)scanf("%d",&a[r][c]);
puts("Elements");
for(r=0;r<nr;r++)
{
for(c=0;c<nc;c++)
{
printf("%6d",a[r][c]);
}
printf("\n");
}getch();
5:08 PM
07/05/2022
TC
Enter no of rows and columns 2 4
Enter 8 integers1 2 3 4 5 6 7 8
Elements
1 2 3 4
5 6 7 8
Page: 18 of 18
Words: 14
120%
5:08 PM
07/05/2022



Eg.

Read elements of n*n matrix and print row sum as follows.


TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 28 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[10][10],nr,nc,r,c,s=0;
clrscr();
printf("Enter no of rows and columns ");
scanf("%d %d",&nr,&nc);
printf("Enter %d integers\n", nr * nc);
for(r=0;r<nr;r++)for(c=0;c<nc;c++)scanf("%d",&a[r][c]);
puts("rows sum ");
for(r=0;r<nr;r++)
{
for(s=0,c=0;c<nc;c++)
{
printf("%d+",a[r][c],s=s+a[r][c]);
}
TC
3 0 9 5 8
1 9 -3 7 6
rows sum
3+0+9+5+8=25
1+9+-3+7+6=20

```
for(r=0;r<nr;r++)
{
for(s=0, c=0;c<nc;c++)
{
p("%d+",a[r][c],s=s+a[r][s]);  ==> 1+2+3=6
                                   4+5+6=15
}
p("\b=%d\n",s);
```

1	2	3
4	5	6

s

0 + 1+2+3=6

4+5+6=15

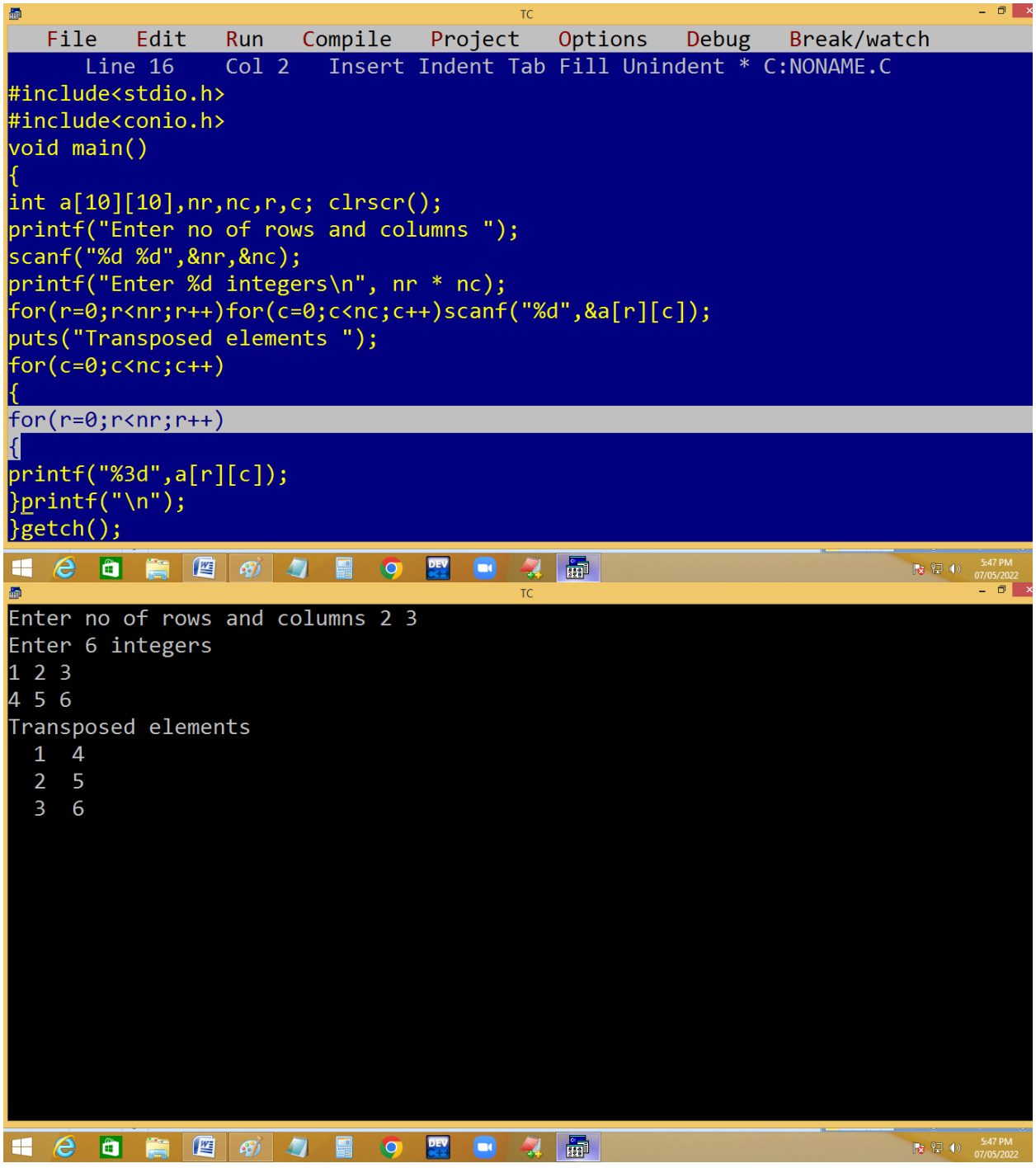
0+4+5+6

r

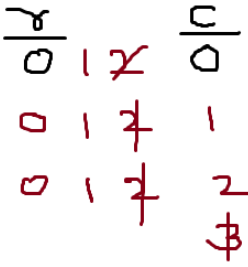
0 c 0,1,2,3

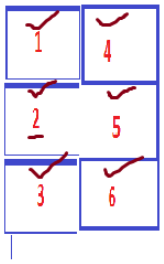
1 0,1,2,3

Transpose of n*n matrix.

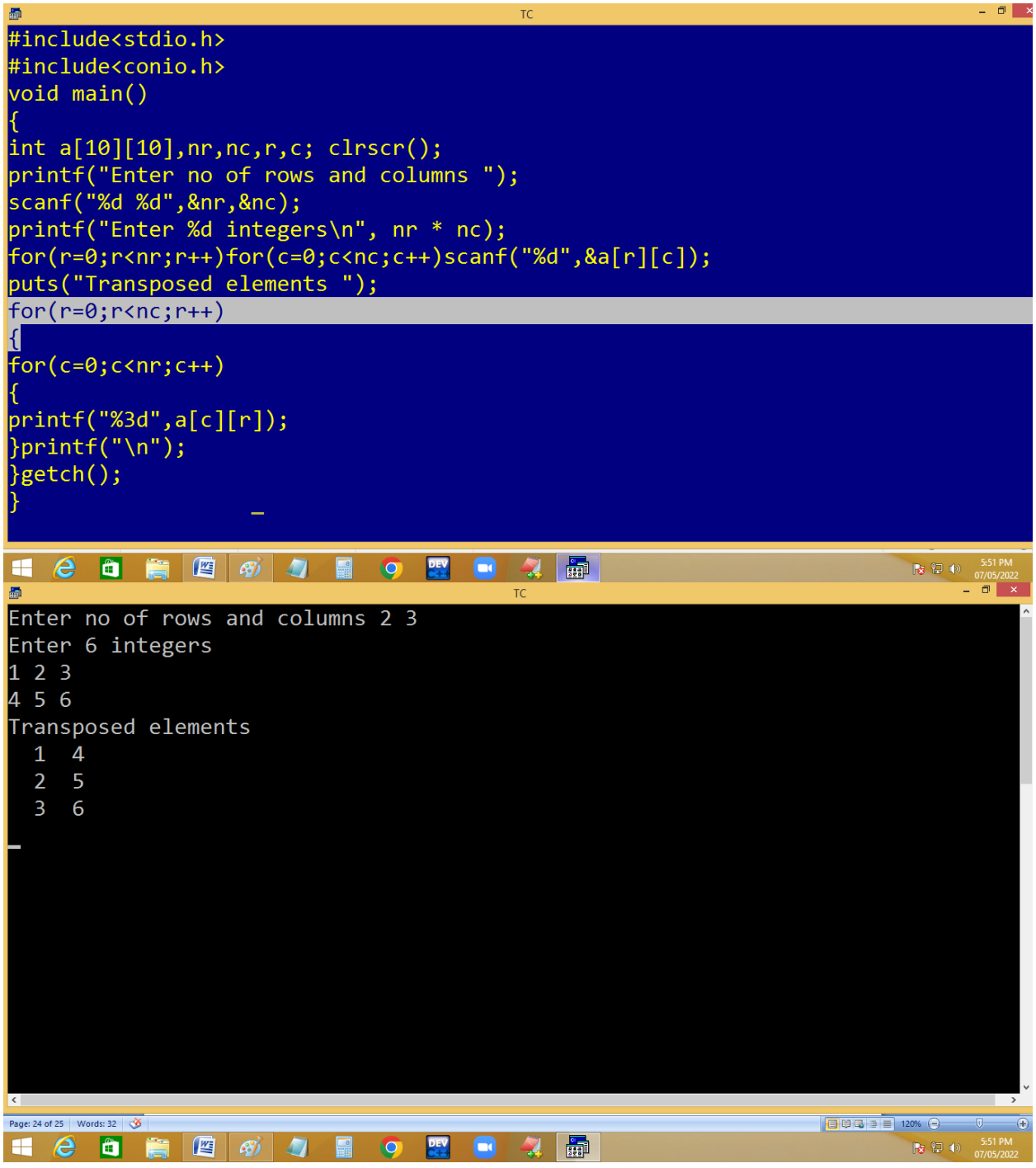

TC
File Edit Run Compile Project Options Debug Break/watch
Line 16 Col 2 Insert Indent Tab Fill Unindent * C:NONAME.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[10][10],nr,nc,r,c; clrscr();
printf("Enter no of rows and columns ");
scanf("%d %d",&nr,&nc);
printf("Enter %d integers\n", nr * nc);
for(r=0;r<nr;r++)for(c=0;c<nc;c++)scanf("%d",&a[r][c]);
puts("Transposed elements ");
for(c=0;c<nc;c++)
{
for(r=0;r<nr;r++)
{
printf("%3d",a[r][c]);
}printf("\n");
}getch();
5:47 PM
07/05/2022
TC
Enter no of rows and columns 2 3
Enter 6 integers
1 2 3
4 5 6
Transposed elements
1 4
2 5
3 6
5:47 PM
07/05/2022

```
for(c=0;c<3;c++)
{
for(r=0;r<2;r++)
{
p(a[r][c]);
}
p("\n");
}
```



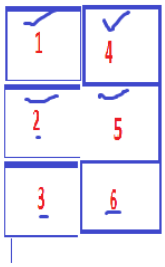


Method 2:


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int a[10][10],nr,nc,r,c; clrscr();
printf("Enter no of rows and columns ");
scanf("%d %d",&nr,&nc);
printf("Enter %d integers\n", nr * nc);
for(r=0;r<nr;r++)for(c=0;c<nc;c++)scanf("%d",&a[r][c]);
puts("Transposed elements ");
for(r=0;r<nc;r++)
{
for(c=0;c<nr;c++)
{
printf("%3d",a[c][r]);
}printf("\n");
}getch();
}
TC
Enter no of rows and columns 2 3
Enter 6 integers
1 2 3
4 5 6
Transposed elements
1 4
2 5
3 6
Page: 24 of 25
Words: 32
120%
5:51 PM
07/05/2022

```
for(r=0;r<3;r++)
{
for(c=0;c<2;c++)
{
p(a[c][r]);
}
p("\n");
}
```

1	2	3
4	5	6

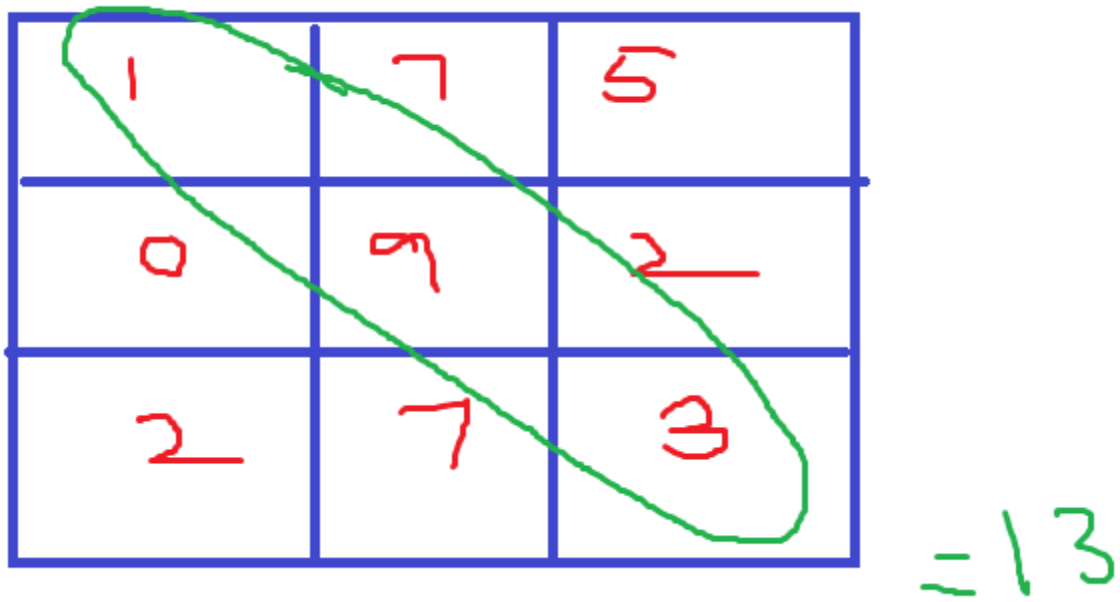


c: 0 1 2

r: 0 1 2 3

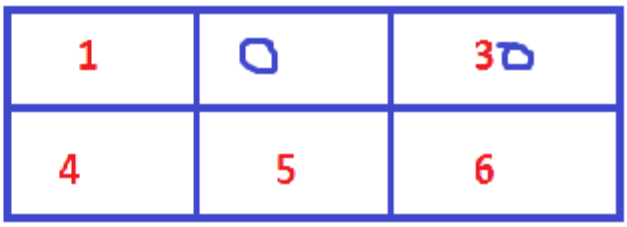
Home work:

Eg 1.Trace of n*n matrix.



Eg 2:

Finding no of even, odd, zeros in each row as follow.



	even	odd	zero
1-row	1	1	1
2-row	2	1	0