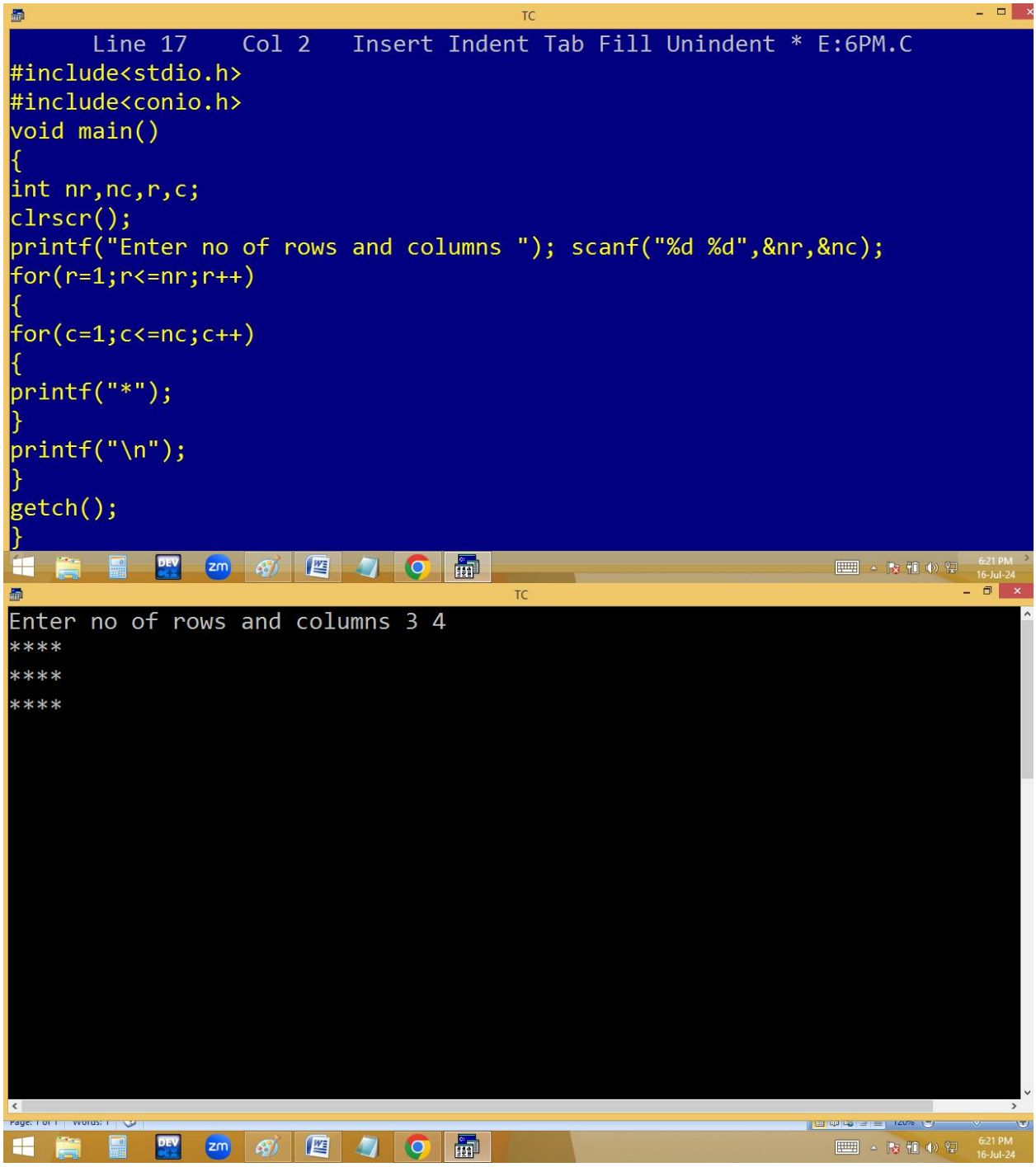
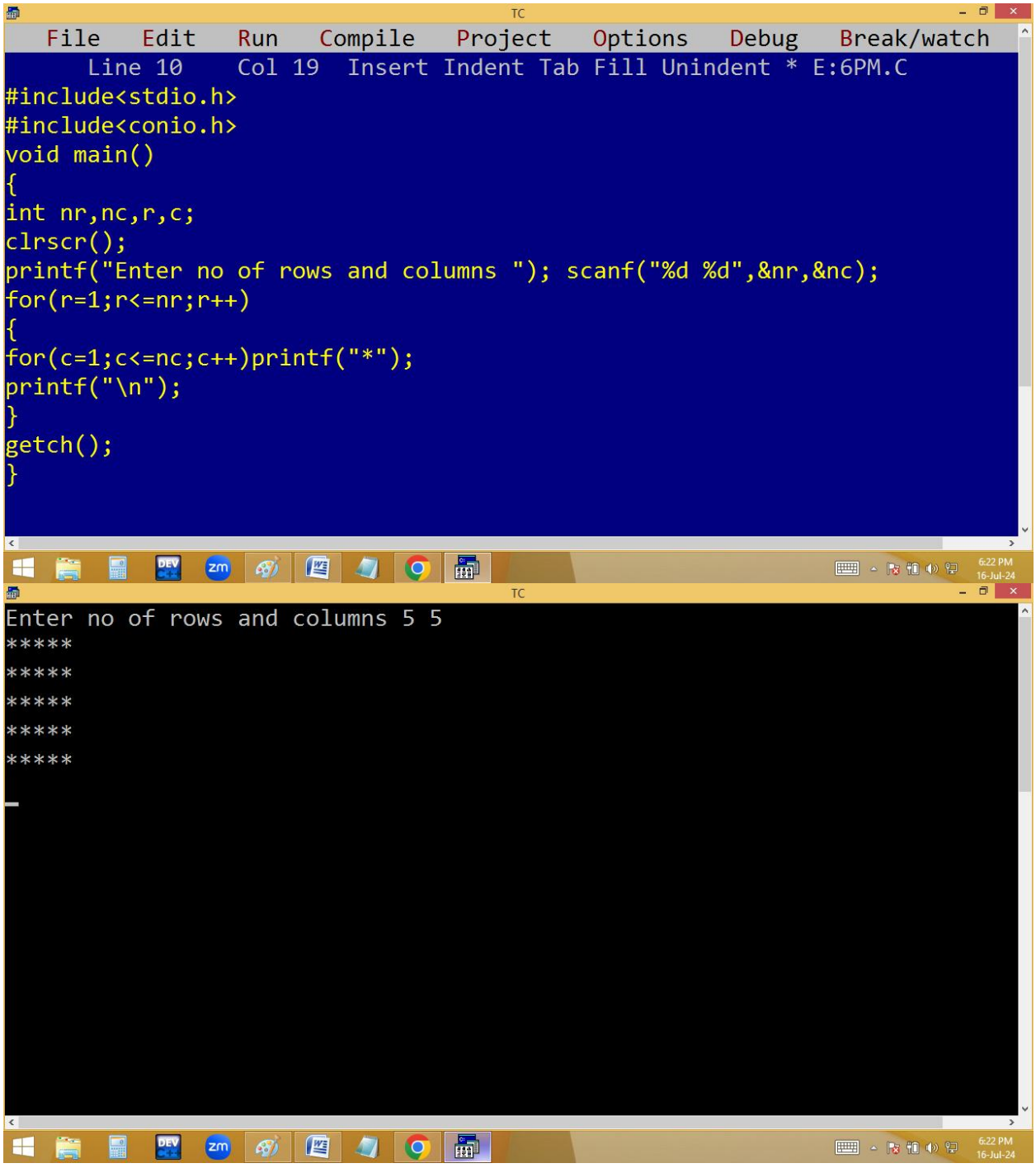
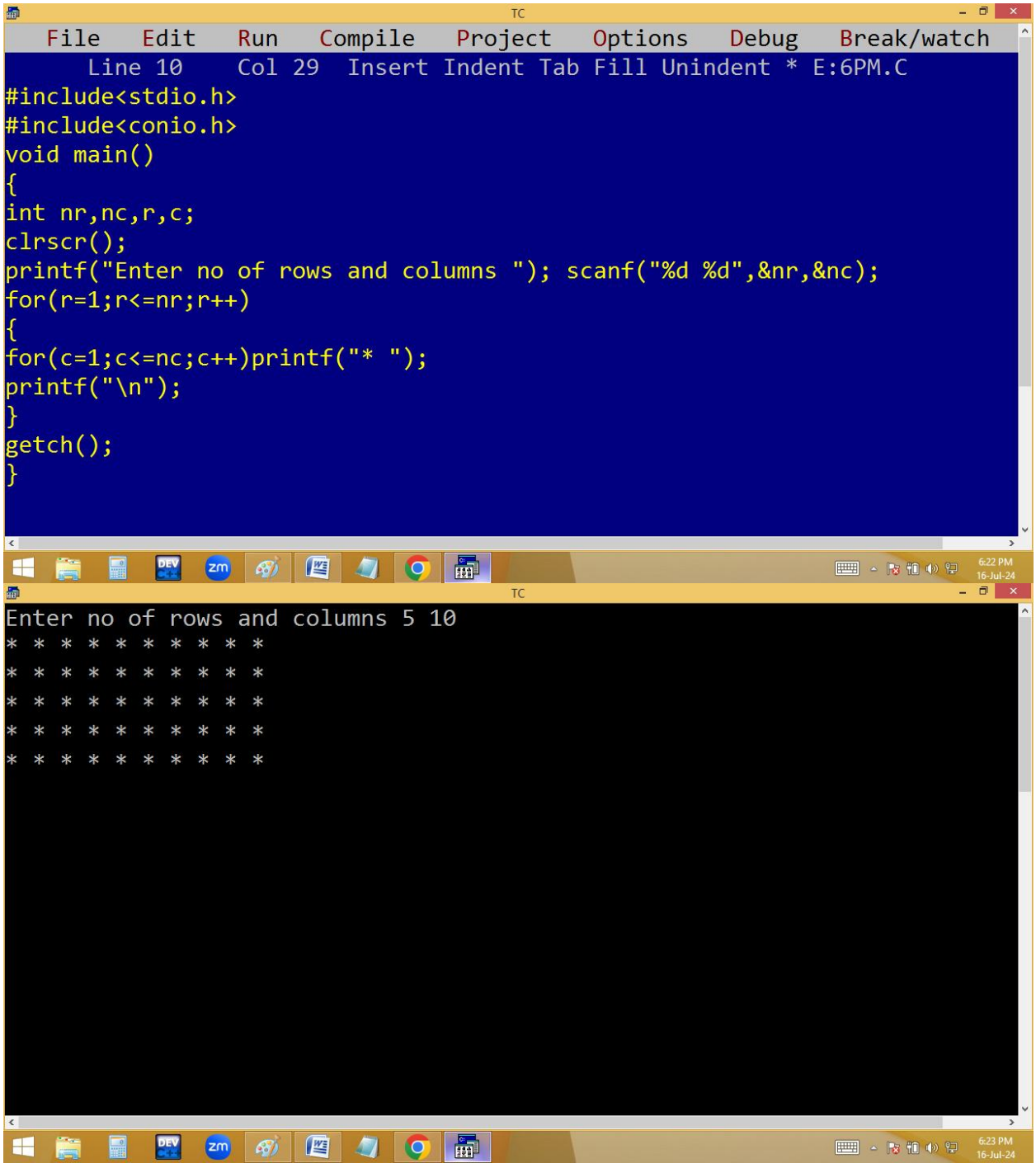
PATTERNS:


TC
Line 17 Col 2 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("*");
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 3 4
****
****
****


TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 19 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)printf("*");
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 5 5
*****
*****
*****
*****
*****


TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 29 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)printf("* ");
printf("\n");
}
getch();
}
6:22 PM
16-Jul-24
TC
Enter no of rows and columns 5 10
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
6:23 PM
16-Jul-24

```
for( r=1; r<=3; r++ )
{
for( c=1; c<=4; c++ )
{
p("*");
}
printf("\n");
}
```

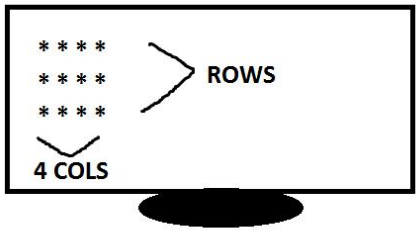
r c = 1 to 4

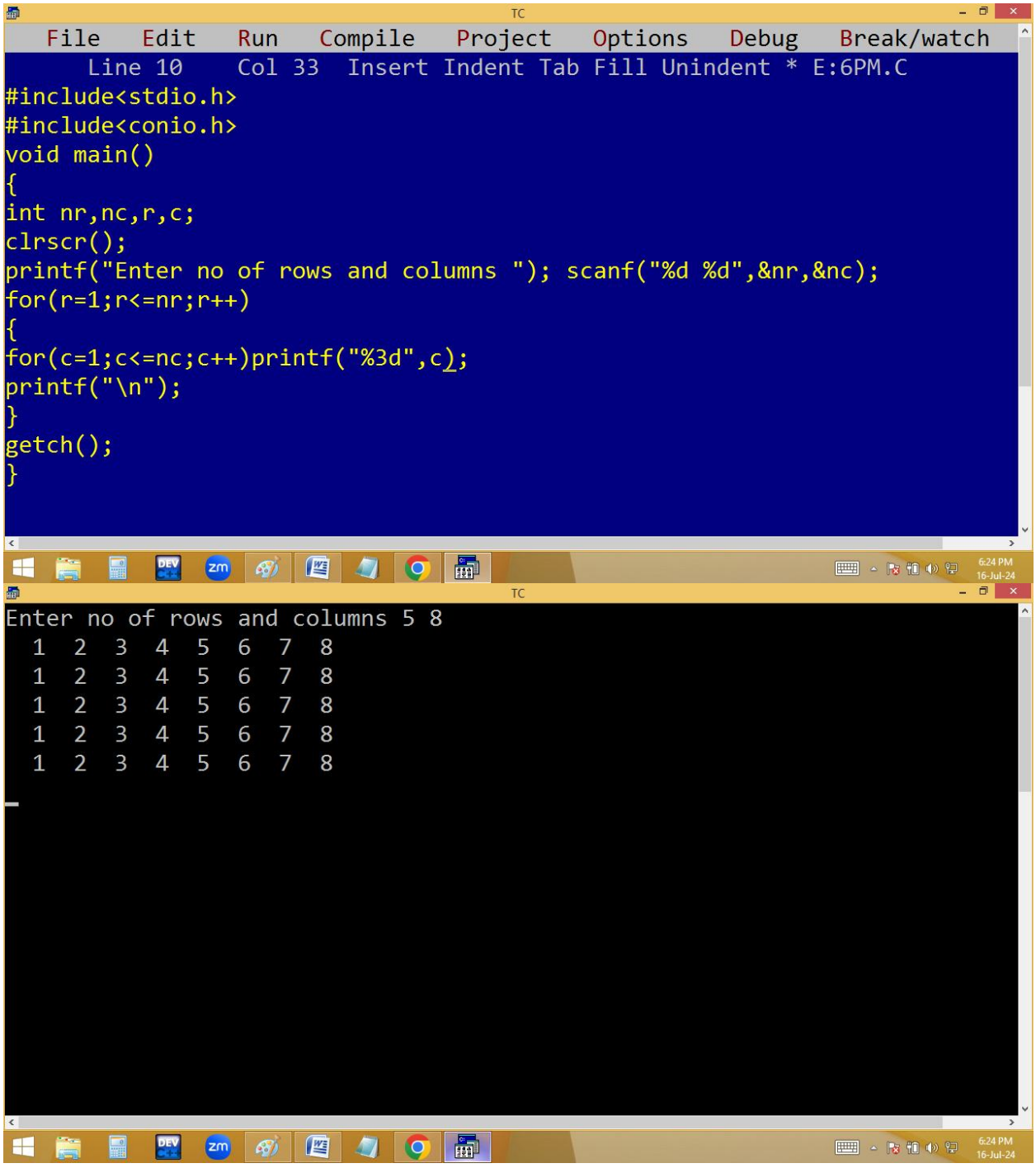
1 * * * *

2 * * * *

3 * * * *

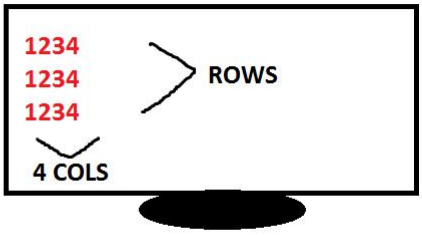
4

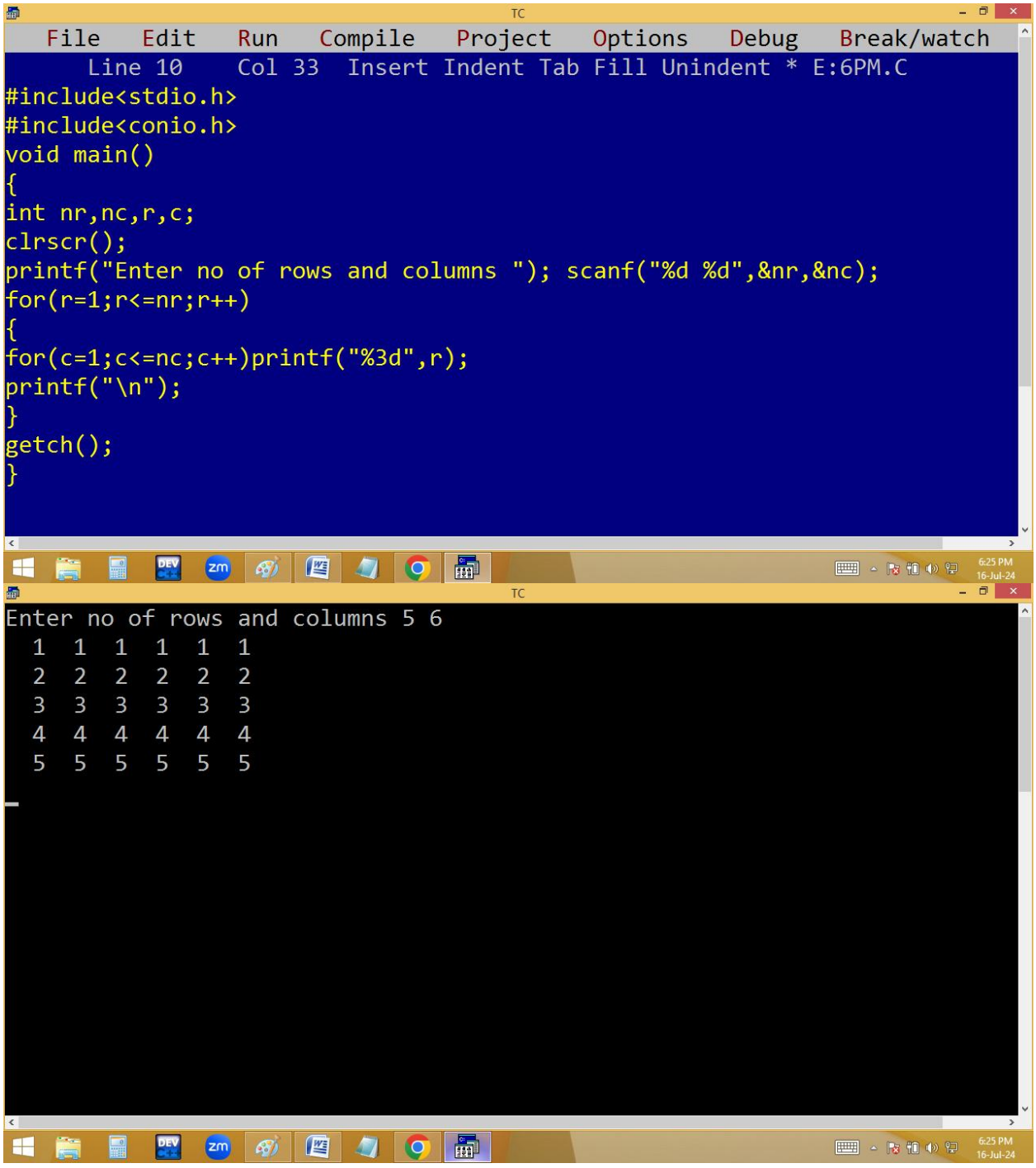



TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 33 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)printf("%3d",c);
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 5 8
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8
1 2 3 4 5 6 7 8

```
for( r=1; r<=3; r++ )
{
for( c=1; c<=4; c++ )
{
p( c );
}
printf("\n");
}
```

r	c = 1 to 4
1	1234
2	1234
3	1234
4	




TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 33 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)printf("%3d",r);
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 5 6
1 1 1 1 1 1
2 2 2 2 2 2
3 3 3 3 3 3
4 4 4 4 4 4
5 5 5 5 5 5

File Edit Run Compile Project Options Debug Break/watch

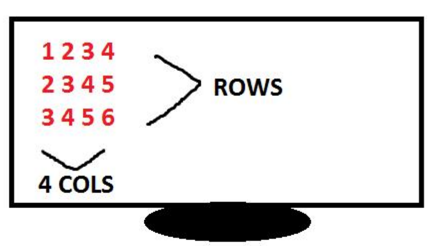
Line 10 Col 39 Insert Indent Tab Fill Unindent * E:6PM.C

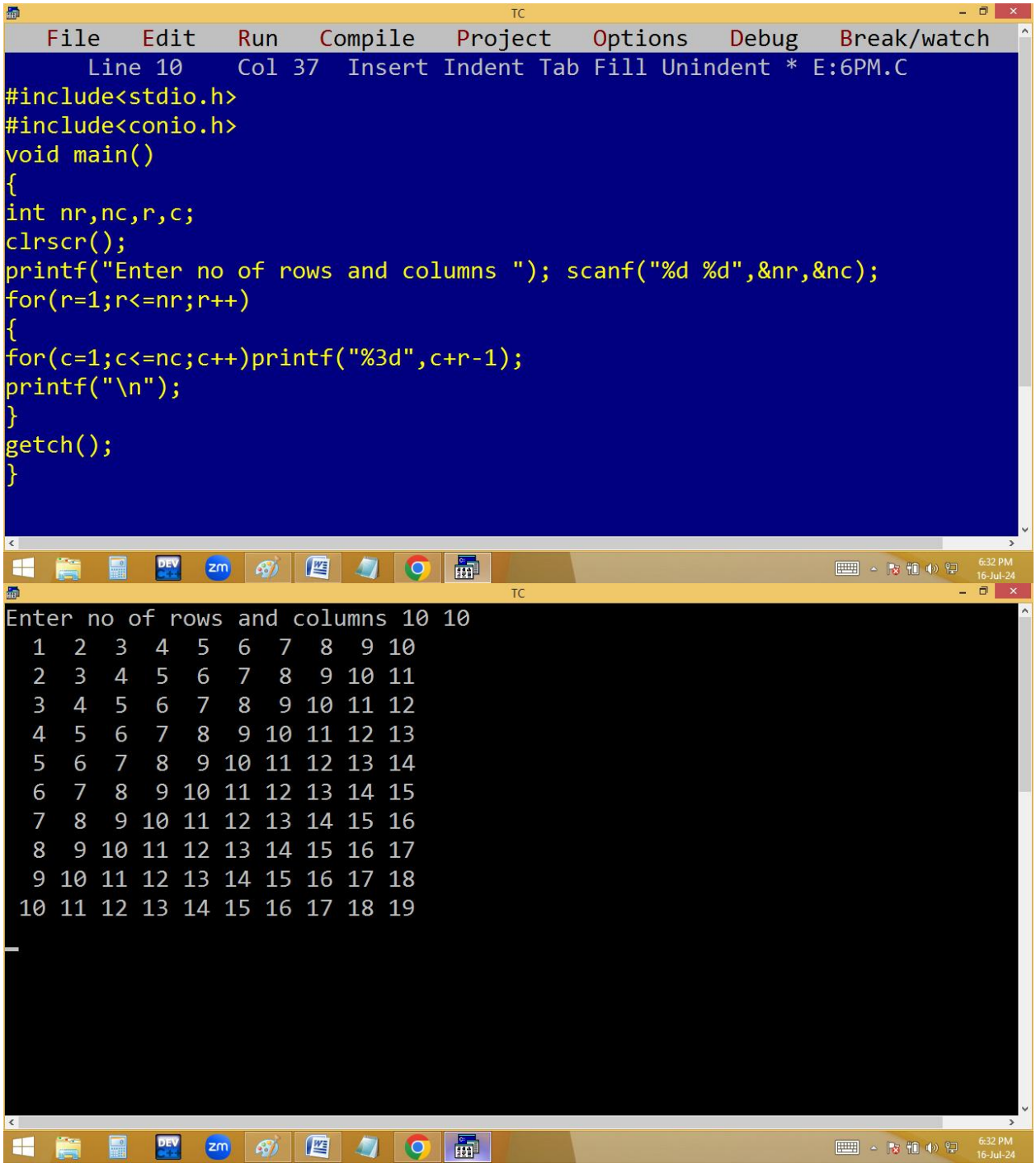
```c
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c,a;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(a=r,c=1;c<=nc;c++)printf("%3d",a++);
printf("\n");
}
getch();
}
```

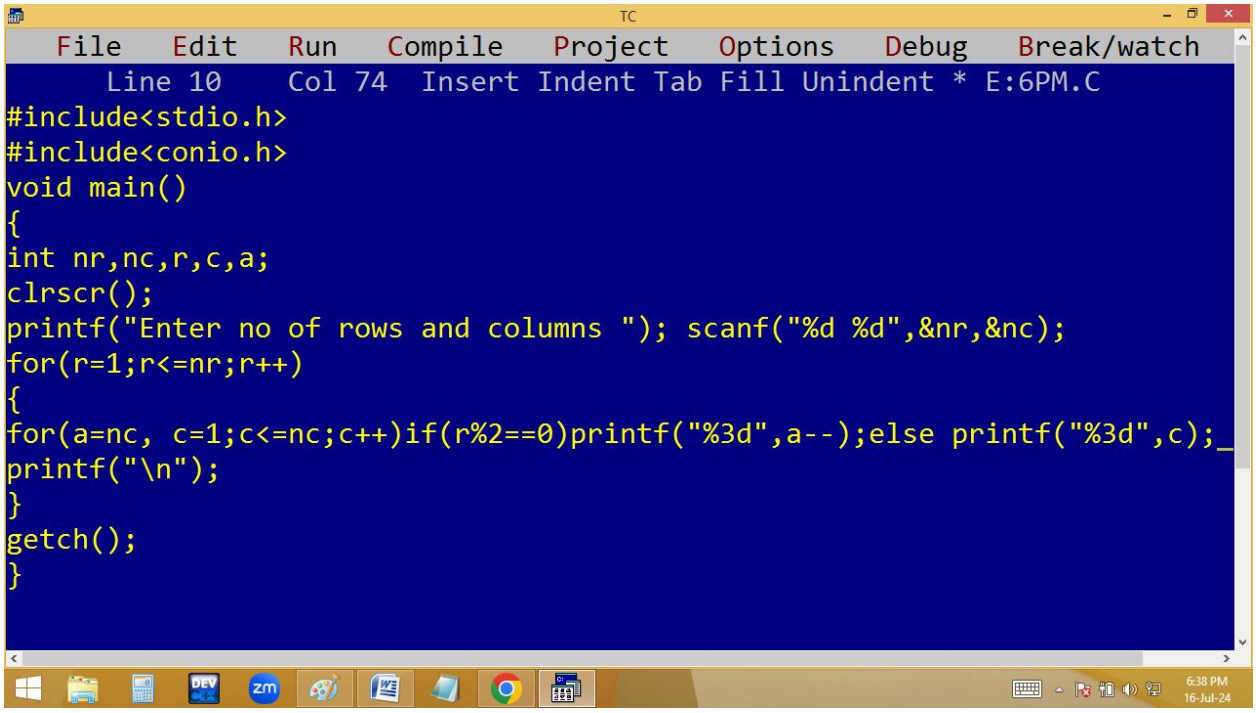
```
Enter no of rows and columns 4 5
  1  2  3  4  5
  2  3  4  5  6
  3  4  5  6  7
  4  5  6  7  8
```

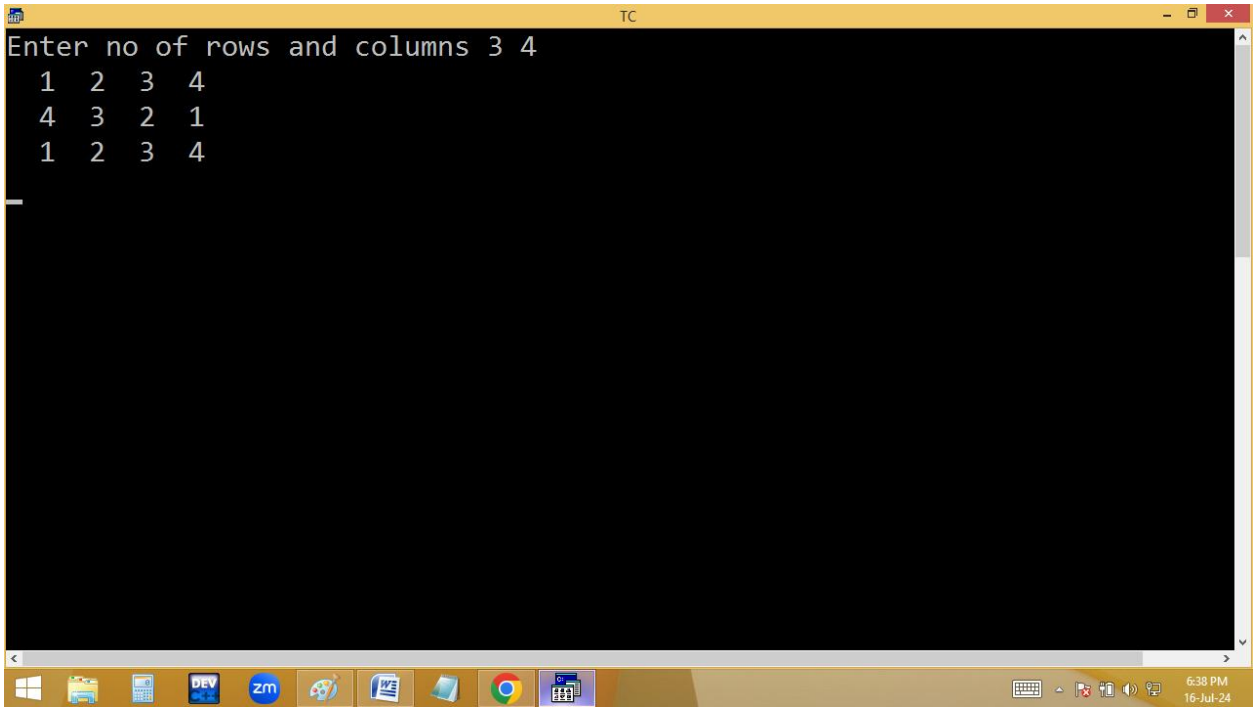
```
for( r=1; r<=3; r++ )
{    a=r;
for( c=1; c<=4; c++ )
{
p( a++   );
}
printf("\n");
}
```

a =	r	c=1 to 4
1	1	1 2 3 4
2	2	2 3 4 5
3	3	3 4 5 6
	~~4~~	



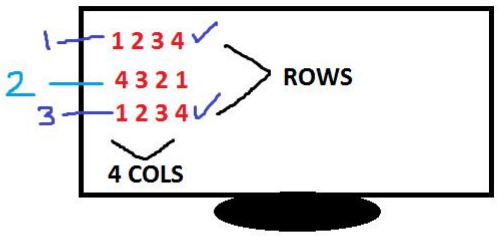

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 37 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)printf("%3d",c+r-1);
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 10 10
1 2 3 4 5 6 7 8 9 10
2 3 4 5 6 7 8 9 10 11
3 4 5 6 7 8 9 10 11 12
4 5 6 7 8 9 10 11 12 13
5 6 7 8 9 10 11 12 13 14
6 7 8 9 10 11 12 13 14 15
7 8 9 10 11 12 13 14 15 16
8 9 10 11 12 13 14 15 16 17
9 10 11 12 13 14 15 16 17 18
10 11 12 13 14 15 16 17 18 19


TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 74 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c,a;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(a=nc, c=1;c<=nc;c++)if(r%2==0)printf("%3d",a--);else printf("%3d",c);
printf("\n");
}
getch();
}



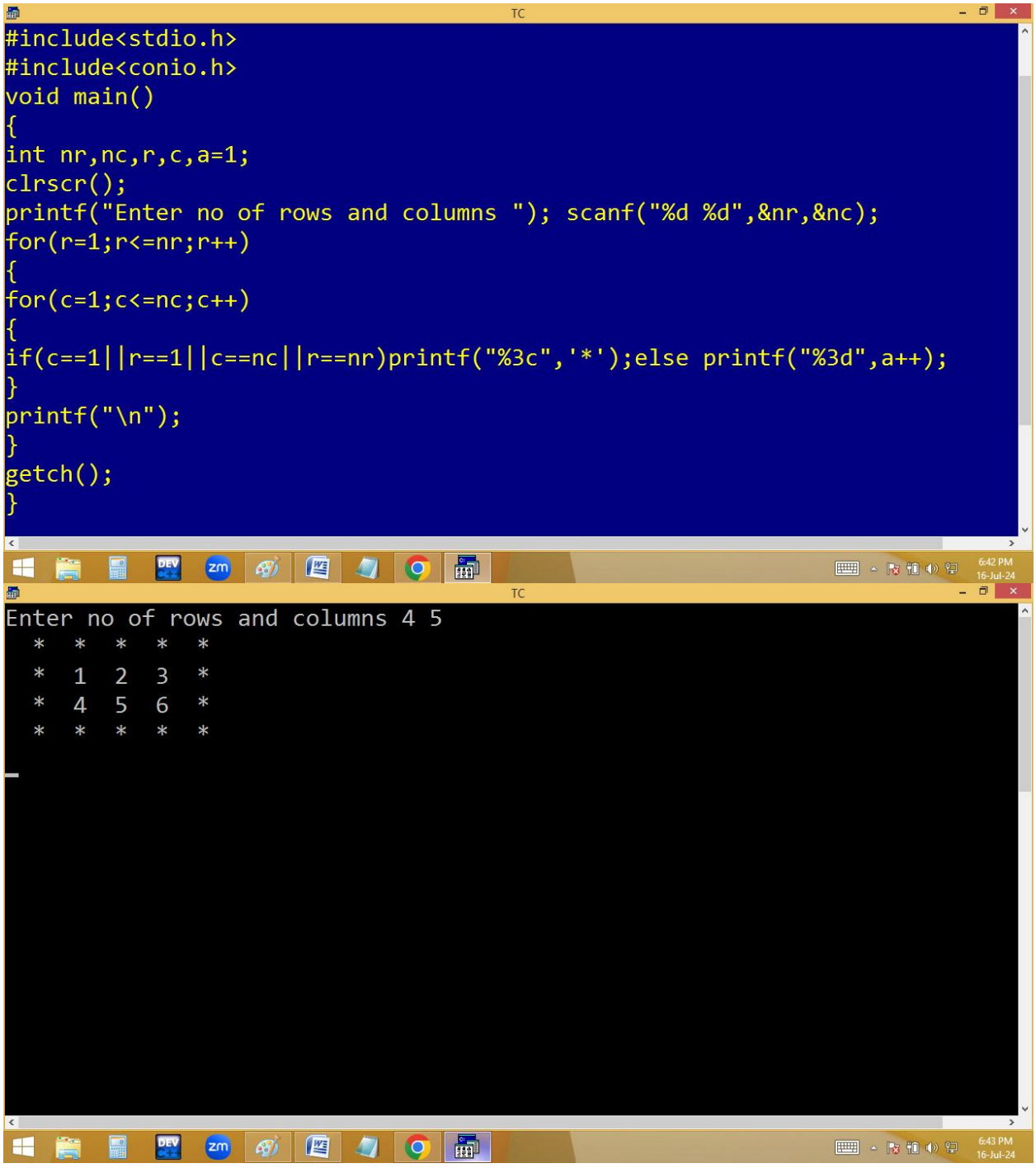

```
for( r=1; r<=3; r++ )
{  a=nc;
for( c=1; c<=4; c++ )
{ if(r%2==0)p(a--);
  else  p(c);
}
printf("\n");
}
```

a--	r	c = 1 to 4
4	1	1 2 3 4
3	2	2 3 4 5
2	3	3 4 5 6
1	4	



1-3 → c: 1 to 4

a=4 → 4 3 2 1


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c,a=1;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(c==1||r==1||c==nc||r==nr)printf("%3c",'*');else printf("%3d",a++);
}
printf("\n");
}
getch();
}
6:42 PM
16-Jul-24
TC
Enter no of rows and columns 4 5
* * * * *
* 1 2 3 *
* 4 5 6 *
* * * * *
6:43 PM
16-Jul-24

```
a=1
for( r=1; r<=3; r++ )
{
for( c=1; c<=4; c++ )
{
if(c==1||r==1||c==nc||r==nr)p(*);
else  p(a++);
}
printf("\n");
}
```

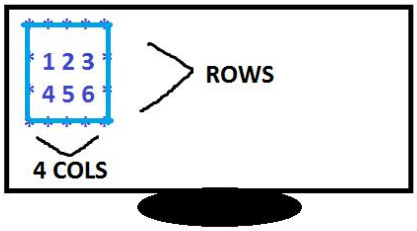
a = 1 2 3

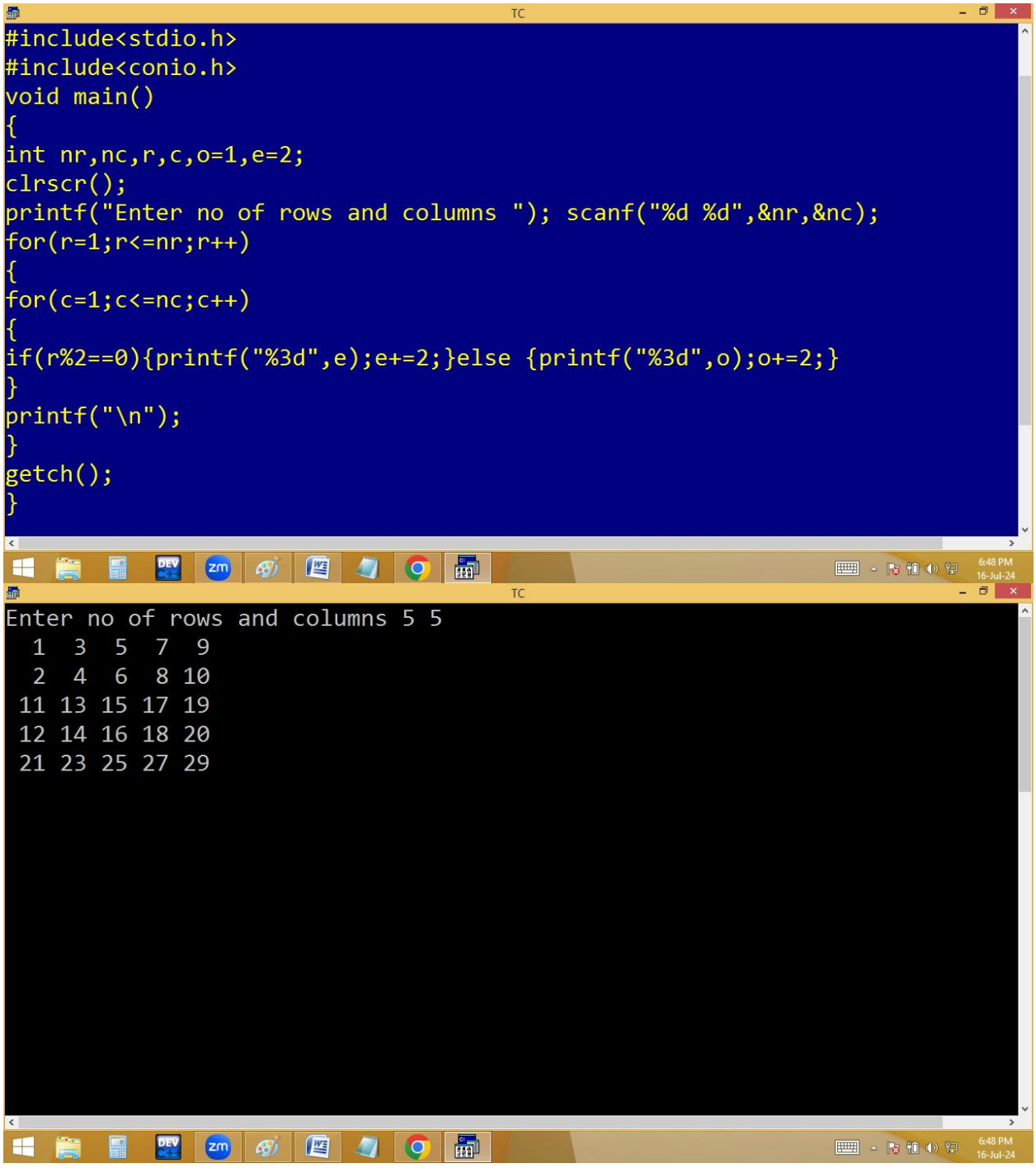
c = 1 to 4

1 2 3 4

2 3 4 5

3 4 5 6




TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c,o=1,e=2;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(r%2==0){printf("%3d",e);e+=2;}else {printf("%3d",o);o+=2;}
}
printf("\n");
}
getch();
}
6:48 PM
16-Jul-24
TC
Enter no of rows and columns 5 5
1 3 5 7 9
2 4 6 8 10
11 13 15 17 19
12 14 16 18 20
21 23 25 27 29
6:48 PM
16-Jul-24

TC

```
      Line 17     Col 58   Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c,o=-1,e=0;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(r%2==0)printf("%3d",e,e+=2);else printf("%3d",o,o+=2);
}
printf("\n");
}
getch();
}
```

6:51 PM 16-Jul-24

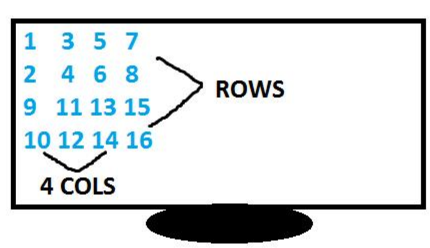
TC

```
Enter no of rows and columns 10 10
  1  3  5  7  9 11 13 15 17 19
  2  4  6  8 10 12 14 16 18 20
 21 23 25 27 29 31 33 35 37 39
 22 24 26 28 30 32 34 36 38 40
 41 43 45 47 49 51 53 55 57 59
 42 44 46 48 50 52 54 56 58 60
 61 63 65 67 69 71 73 75 77 79
 62 64 66 68 70 72 74 76 78 80
 81 83 85 87 89 91 93 95 97 99
 82 84 86 88 90 92 94 96 98100
```

6:51 PM 16-Jul-24

```
e=0; o=-1
for( r=1; r<=3; r++ )
{
for( c=1; c<=4; c++ )
{
if(r%2)p(o ;o+=2; else p(e , e+=2)
}
printf("\n");
}
```

r	c=1 to 4
1	1 2 3 4
2	2 3 4 5
3	3 4 5
4 (crossed out)	



TC

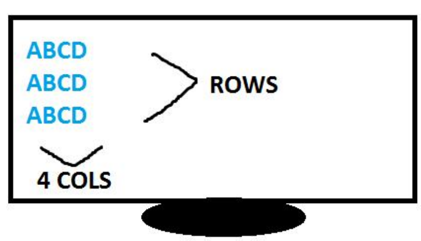
```
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("%2c",64+c);
}
printf("\n");
}
getch();
}
```

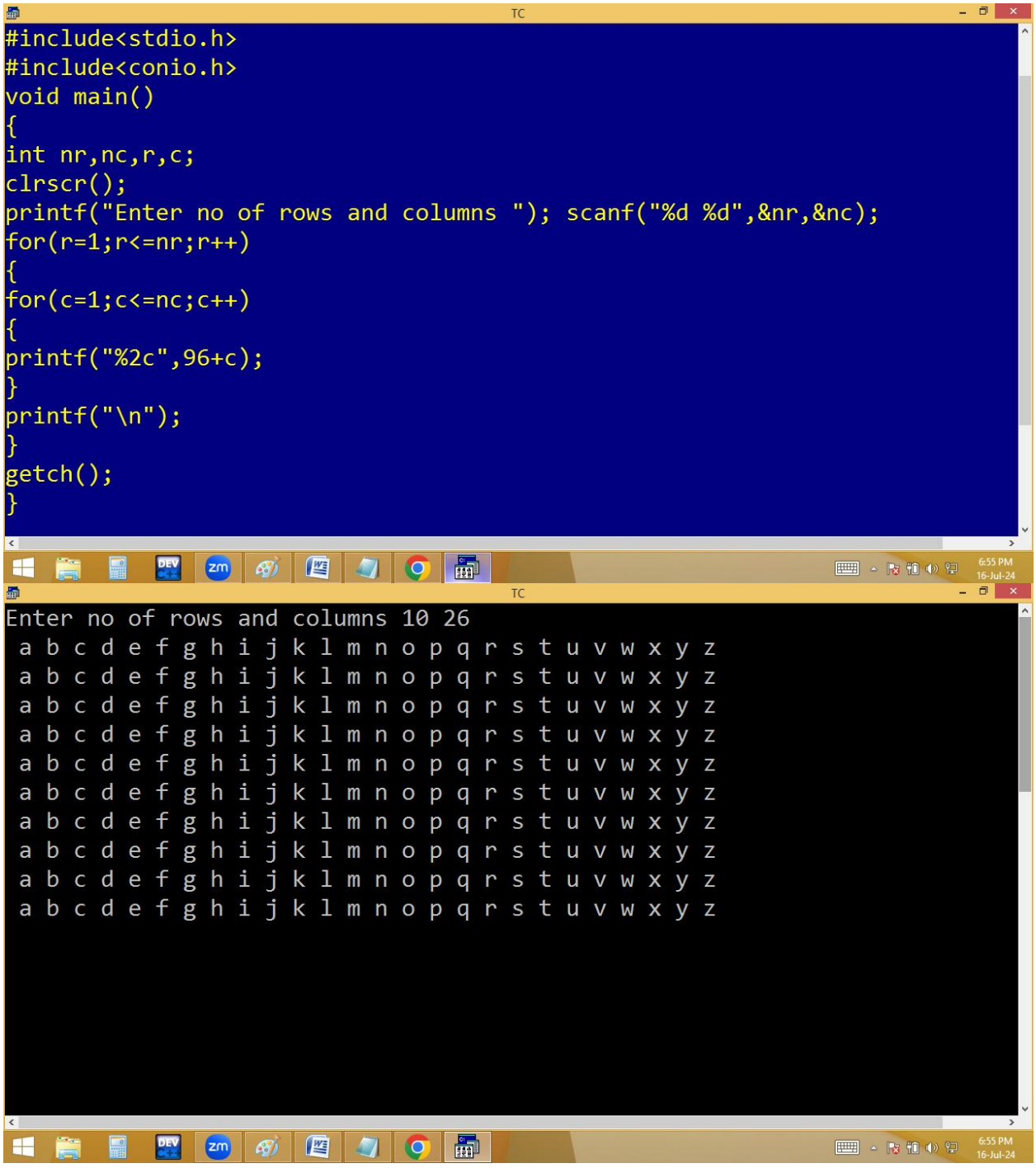
TC

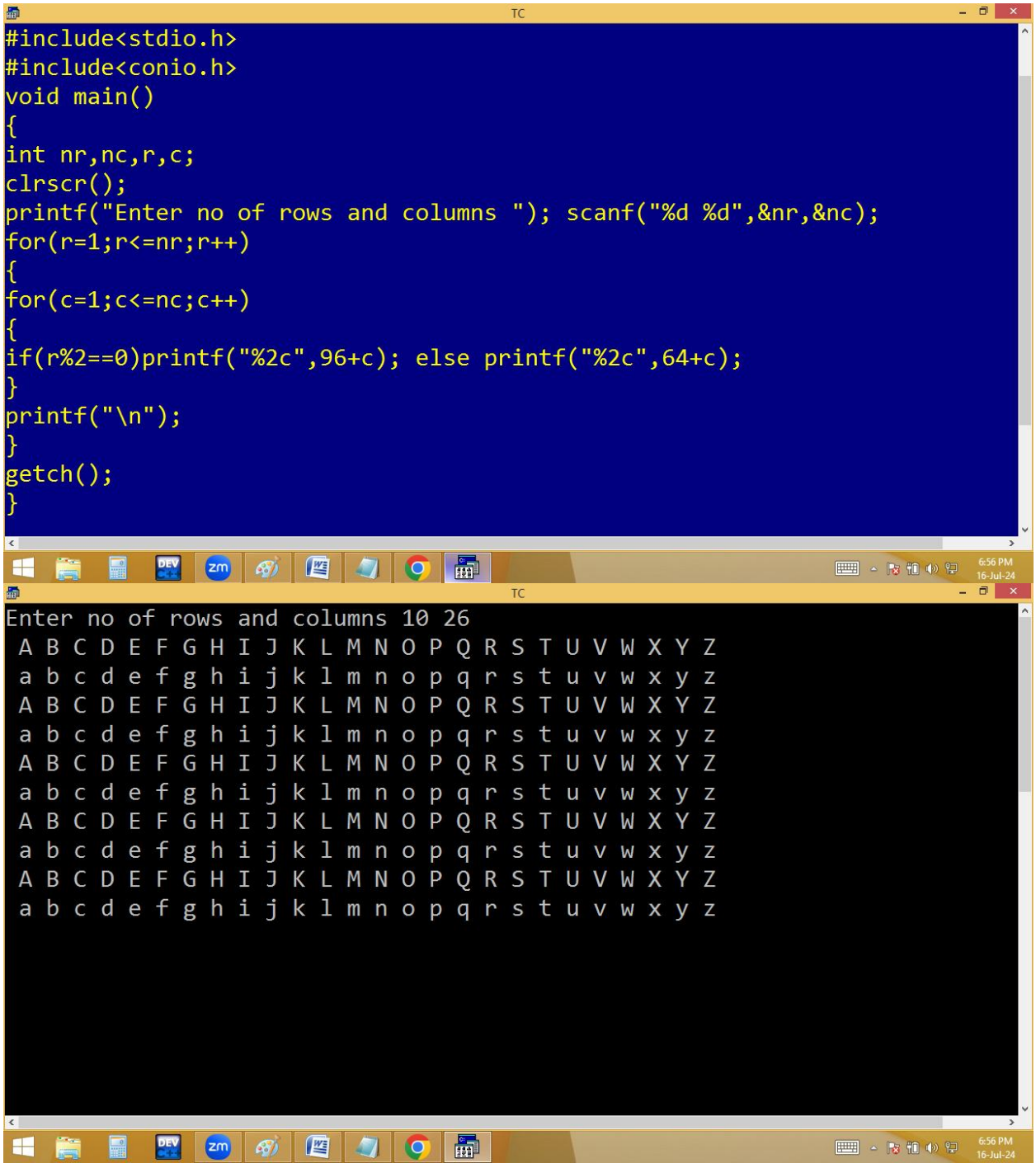
```
Enter no of rows and columns 10 26
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
```

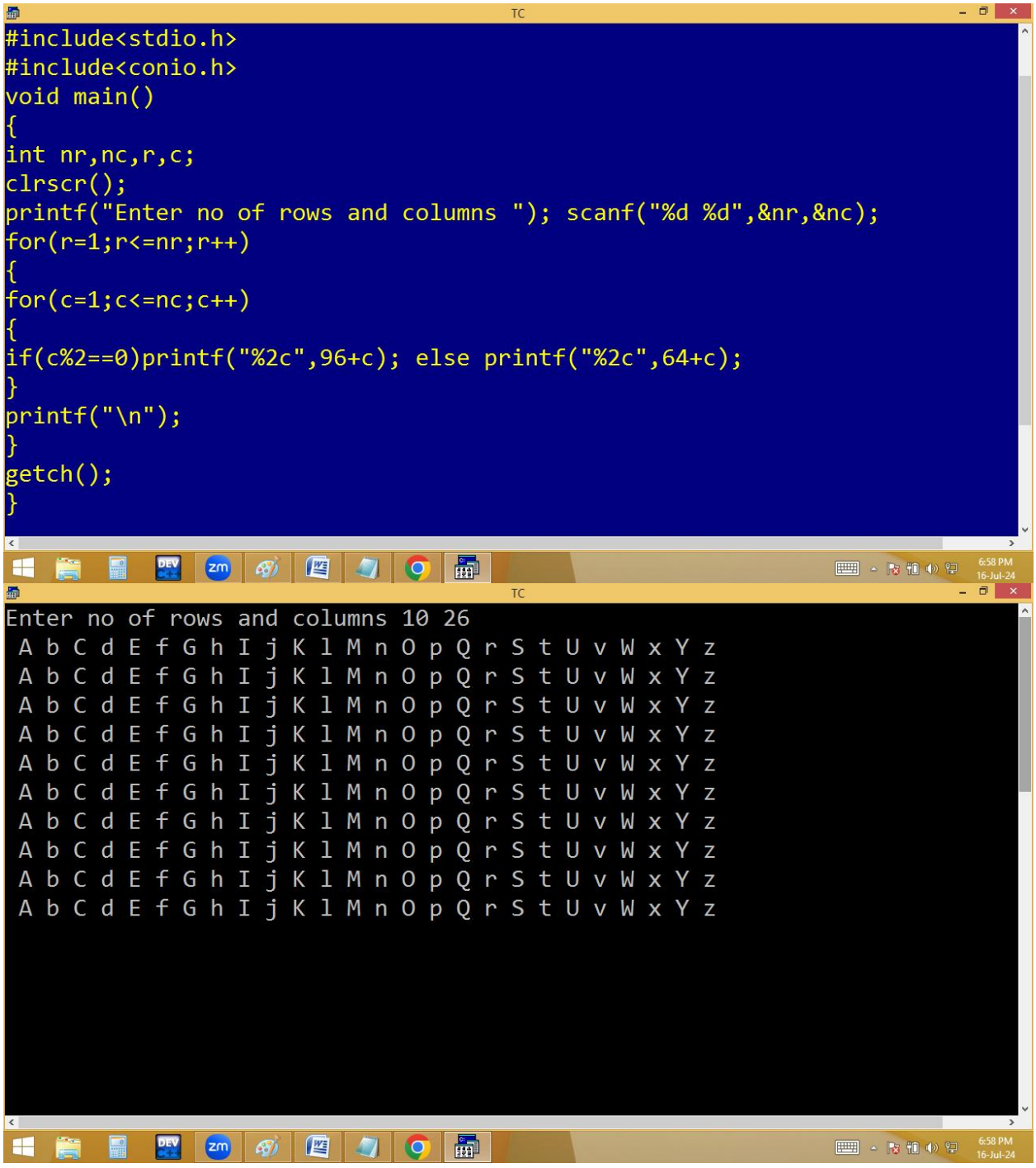
```
for( r=1; r<=3; r++ )
{
for( c=1; c<=4; c++ )
{
p( 64+c );
}
printf("\n");
}
```

r	c=1 to 4
1	64+ 1 2 3 4
2	64+ 1 2 3 4
3	64+ 1 2 3 4
~~4~~	




TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("%2c",96+c);
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 10 26
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z
a b c d e f g h i j k l m n o p q r s t u v w x y z


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(r%2==0)printf("%2c",96+c); else printf("%2c",64+c);
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 10 26
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(c%2==0)printf("%2c",96+c); else printf("%2c",64+c);
}
printf("\n");
}
getch();
}
6:58 PM
16-Jul-24
TC
Enter no of rows and columns 10 26
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
A b C d E f G h I j K l M n O p Q r S t U v W x Y z
6:58 PM
16-Jul-24

```c
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c; char a;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(a=64+nc, c=1;c<=nc;c++)
{
if(r%2==0)printf("%2c",a--); else printf("%2c",64+c);
}
printf("\n");
}
getch();
}
```

```
Enter no of rows and columns 10 26
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 Z Y X W V U T S R Q P O N M L K J I H G F E D C B A
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 Z Y X W V U T S R Q P O N M L K J I H G F E D C B A
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 Z Y X W V U T S R Q P O N M L K J I H G F E D C B A
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 Z Y X W V U T S R Q P O N M L K J I H G F E D C B A
 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
 Z Y X W V U T S R Q P O N M L K J I H G F E D C B A
```

```
for( r=1; r<=3; r++ )
{  char a = 64+nc;
for( c=1; c<=4; c++ )
{
o p( a--  );  e 64+c
}
printf("\n");
}
```

r c = 1 to 4

1 64+1 2 3 4

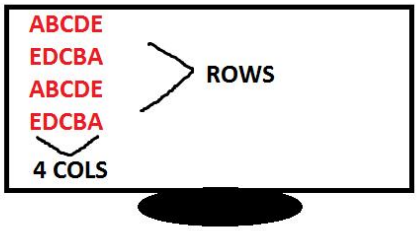
2 64+1 2 3 4

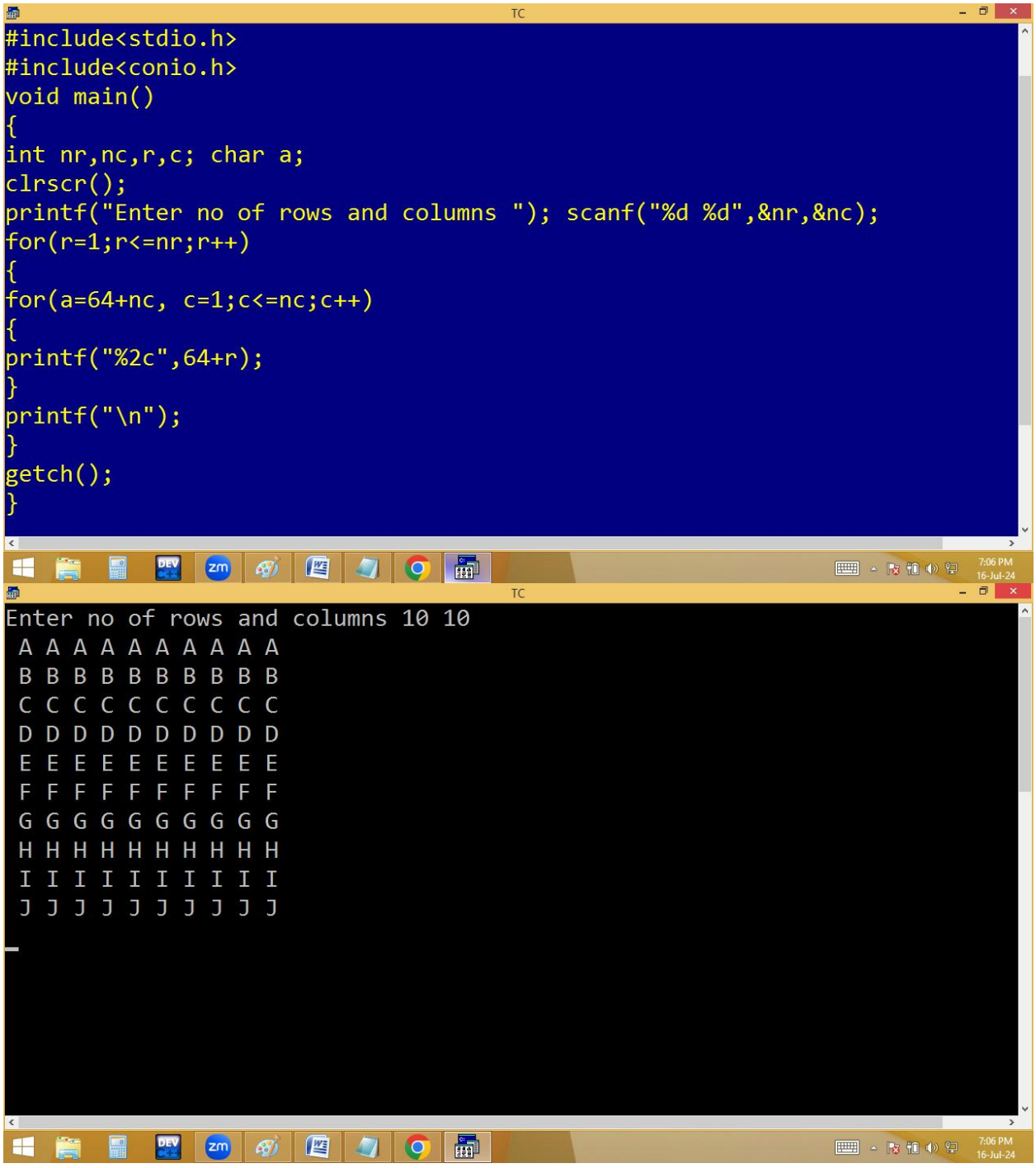
3 64+1 2 3 4

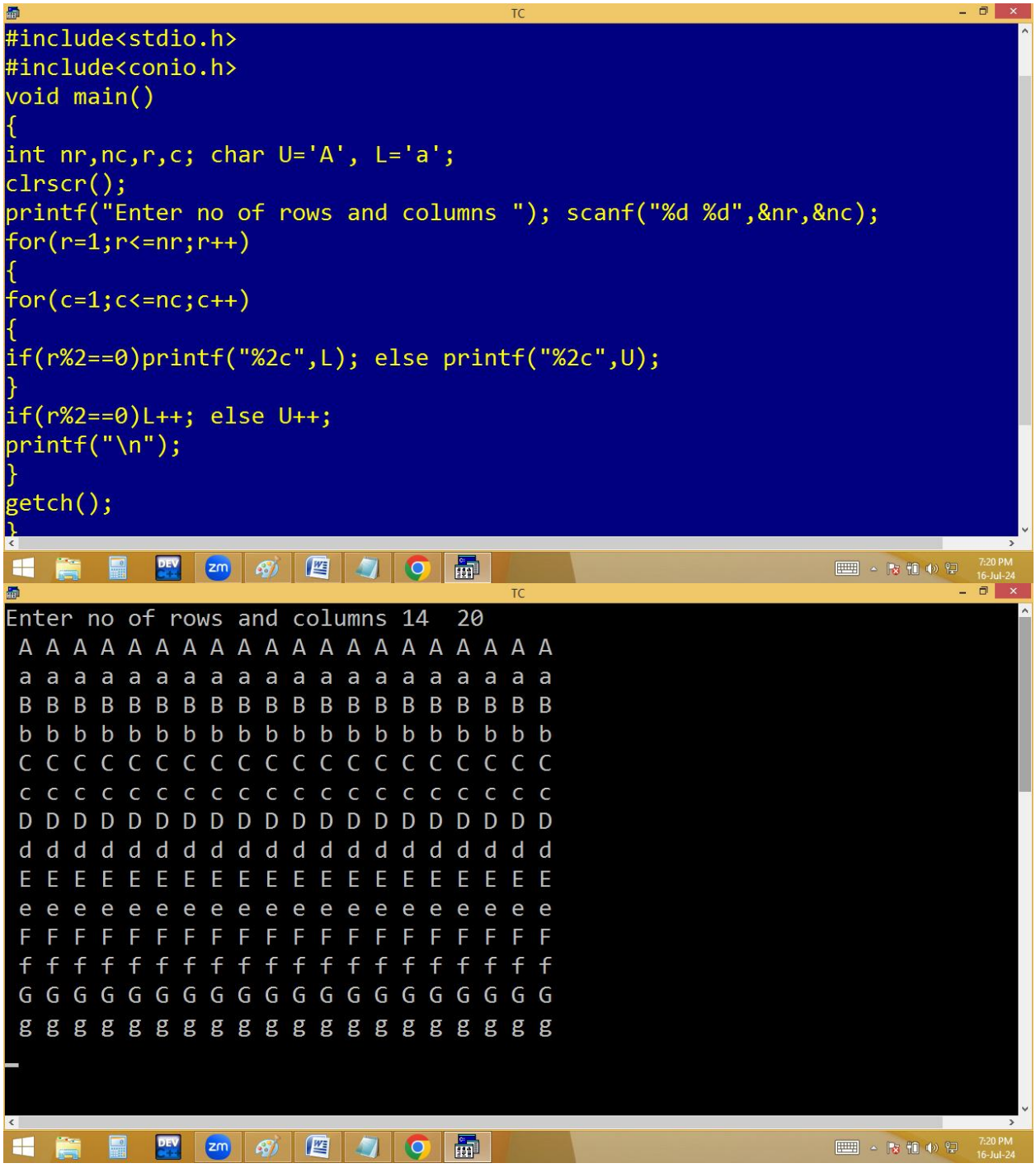
4

a-- = 64+5 = 69 EDCBA 1 2 3 4

64+c = 65 66 67 68 69 4 3 2 1




TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c; char a;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(a=64+nc, c=1;c<=nc;c++)
{
printf("%2c",64+r);
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 10 10
A A A A A A A A A A
B B B B B B B B B B
C C C C C C C C C C
D D D D D D D D D D
E E E E E E E E E E
F F F F F F F F F F
G G G G G G G G G G
H H H H H H H H H H
I I I I I I I I I I
J J J J J J J J J J


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c; char U='A', L='a';
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(r%2==0)printf("%2c",L); else printf("%2c",U);
}
if(r%2==0)L++; else U++;
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 14 20
A A A A A A A A A A A A A A A A A A A A
a a a a a a a a a a a a a a a a a a a a
B B B B B B B B B B B B B B B B B B B B
b b b b b b b b b b b b b b b b b b b b
C C C C C C C C C C C C C C C C C C C C
c c c c c c c c c c c c c c c c c c c c
D D D D D D D D D D D D D D D D D D D D
d d d d d d d d d d d d d d d d d d d d
E E E E E E E E E E E E E E E E E E E E
e e e e e e e e e e e e e e e e e e e e
F F F F F F F F F F F F F F F F F F F F
f f f f f f f f f f f f f f f f f f f f
G G G G G G G G G G G G G G G G G G G G
g g g g g g g g g g g g g g g g g g g g

```c
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d %d",&nr,&nc);
for(r=1;r<=nr;r++)
{char U='A', L='a';
for(c=1;c<=nc;c++)
{
if(c%2==0)printf("%c",L++); else printf("%c",U++);
}
printf("\n");
}
getch();
}
```

```
Enter no of rows and columns 10 52
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
AaBbCcDdEeFfGgHhIiJjKkLlMmNnOoPpQqRrSsTtUuVvWwXxYyZz
```