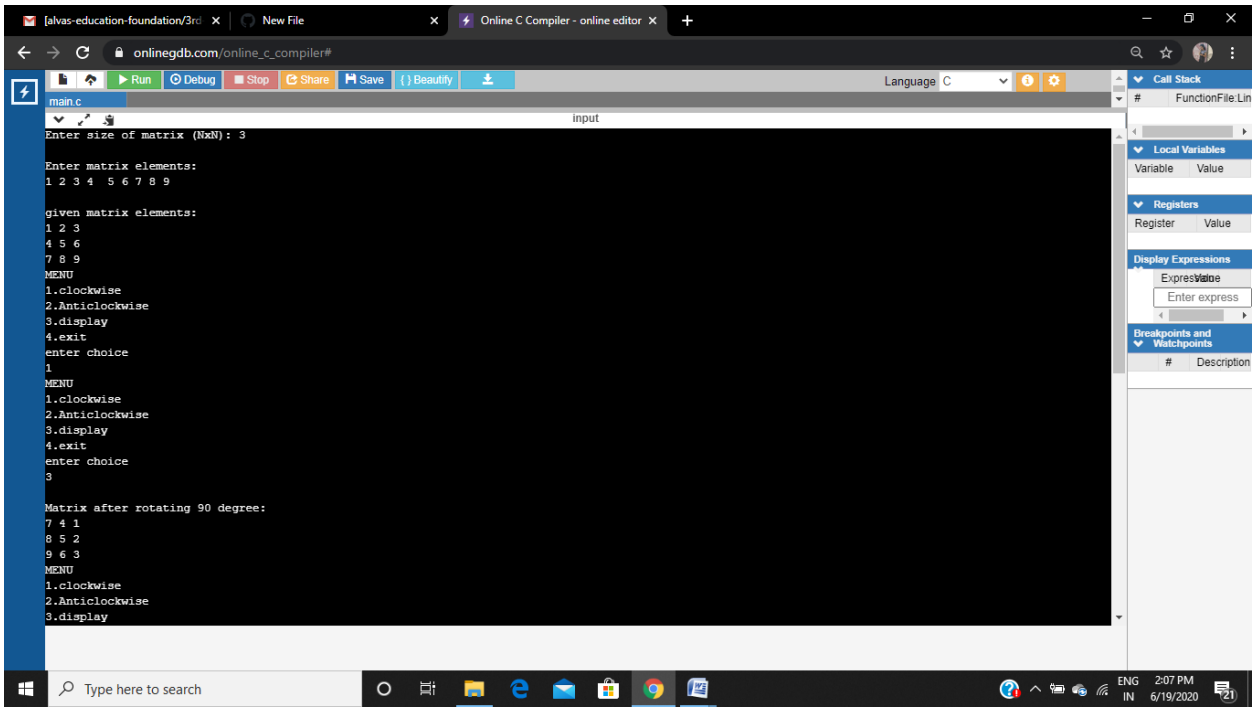
Write a C Program to rotate a Matrix by 90 Degree in Clockwise or Anticlockwise Direction

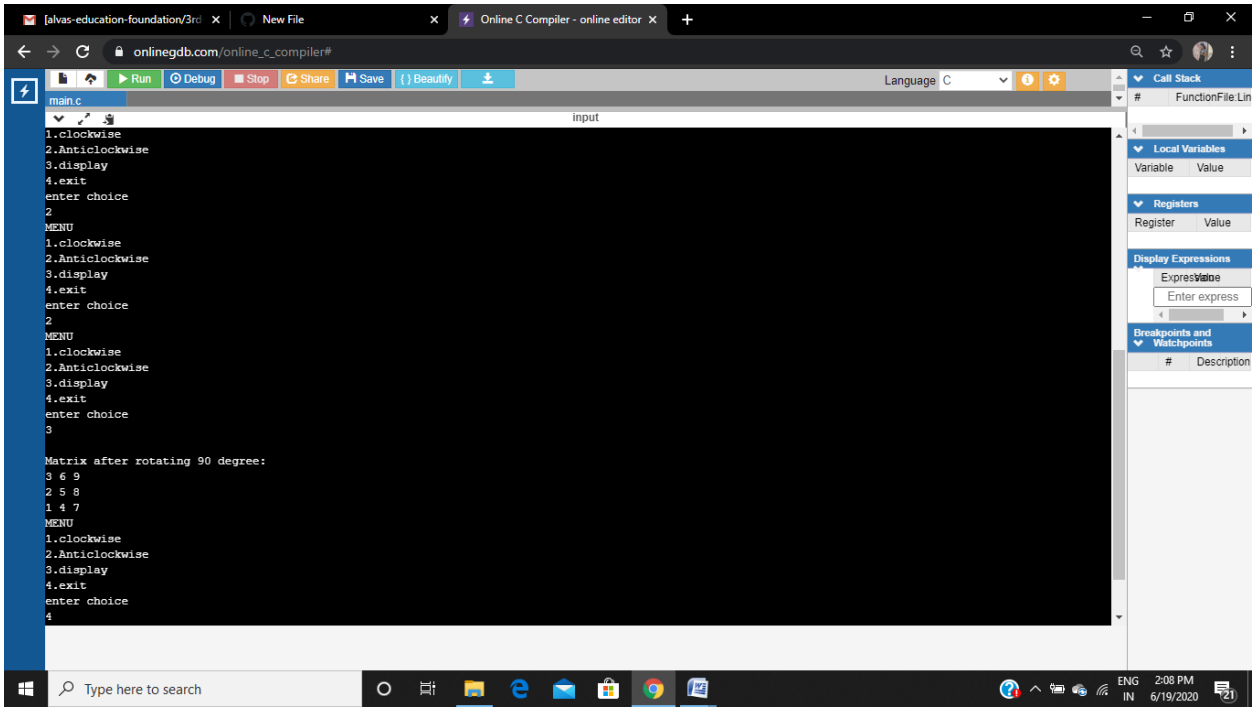
```
#include <stdio.h>

int main()

{

 int c,l=1,n;

   printf("Enter size of matrix (NxN): ");

  scanf("%d",&n);

  int arr[n][n];

  printf("\nEnter matrix elements:\n");

  for(int i=0;i<n;i++)

  {

     for(int j=0;j<n;j++)

     {

        scanf("%d",&arr[i][j]);

     }

  }

  printf("\ngiven matrix elements:\n");

  for(int i=0;i<n;i++)

  {

     for(int j=0;j<n;j++)

     {

        printf("%d ",arr[i][j]);

     }

     printf("\n");
```

```
 }



while(l)
{
   printf("MENU\n");
   printf("1.clockwise\n");
   printf("2.Anticlockwise\n");
   printf("3.display\n");
   printf("4.exit\n");
   printf("enter choice\n");
   scanf("%d",&c);

   {
      if(c==1){
       for (int i=0;i<n/2;i++)
 {
  for (int j=i;j<n-i-1;j++)
  {
        int temp=arr[i][j];
        arr[i][j]=arr[n-1-j][i];
        arr[n-1-j][i]=arr[n-1-i][n-1-j];
        arr[n-1-i][n-1-j]=arr[j][n-1-i];
        arr[j][n-1-i]=temp;
  }
```

```
}
      }
   else if(c==2){
         for(int i=0;i<n/2;i++)
{
    for(int j=i;j<n-i-1;j++)
    {

       int temp=arr[i][j];
       arr[i][j]=arr[j][n-i-1];
       arr[j][n-i-1]=arr[n-i-1][n-j-1];
       arr[n-i-1][n-j-1]=arr[n-j-1][i];
       arr[n-j-1][i]=temp;
    }
}



    }
   else if(c==3)
    {
         printf("\nMatrix after rotating 90 degree:\n");
for(int i=0;i<n;i++)
{
    for(int j=0;j<n;j++)
    {
```

```
        printf("%d ",arr[i][j]);
    }
    printf("\n");
}


    }
    else l=0;


   }


   }
}
```




[alvas-education-foundation/3rd
New File
Online C Compiler - online editor
onlinegdb.com/online_c_compiler#
Run
Debug
Stop
Share
Save
{ } Beautify
Language C
main.c
input
1.clockwise
2.Anticlockwise
3.display
4.exit
enter choice
2
MENU
1.clockwise
2.Anticlockwise
3.display
4.exit
enter choice
2
MENU
1.clockwise
2.Anticlockwise
3.display
4.exit
enter choice
3
Matrix after rotating 90 degree:
3 6 9
2 5 8
1 4 7
MENU
1.clockwise
2.Anticlockwise
3.display
4.exit
enter choice
4
Call Stack
FunctionFile:Lin
Local Variables
Variable Value
Registers
Register Value
Display Expressions
Expression Value
Enter express
Breakpoints and Watchpoints
Description
Type here to search
ENG
IN
2:08 PM
6/19/2020