Q. Write a program implementing insert, delete and display operation of circular queue ?

```
#include <stdio.h>
#define MAX 5
int queue_arr[MAX];
int front = 0;
int rear = -1;
int count = 0;
int insert(int item)
{
 if(count == MAX)
{
printf("Queue overflow \n");
return;
}
else
 {
```

```
rear = (rear + 1) % MAX;
queue_arr[rear] = item;
count = count + 1;
return;
}}
void deletion()
{
  if (count == 0) {
printf ("queue underflow \n");
return;
} else {
printf ("element deleted from queue is
%d \n", queue_arr[front]);
front = (front + 1) % MAX;
count = count - 1;
}}
void display ()
{
int i, j;
if (count == 0)
{ printf ("circular queue is empty");
}
else
{
printf ("element in the circular queue is \n");
j = front;
```

```
for (i=0;i<count;i++)
{
printf("%d\t",queue_arr[j]);
j = (j+1)%Max;
}}}
int main()
{
int choice,item;
printf("*** Circular Queue ***\n");
do
{
printf("\n1-Insertion\n");
printf("2- deletion\n");
printf("3- display\n");
printf("4- Quit\n");
printf("enter your choice");
switch (choice)
{
case 1:
printf("enter the element for insertion");
scanf("%d", &item);
insert(item);
break;
case 2:
deletion();
break;
```

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case 3 :
        display();
        break;

case 4 ;
        break ;

default :
        printf("wrong choice \n");
 }
 }
while(choice!=4);
 return 0;
 }
```