```c
#include<stdio.h>
#define SIZE 5
int circularqueue[SIZE];
int front=-1;
int rear=-1;
void insert(int value)
{
    if(front=(rear+1)%SIZE)
    {
        printf("Circular queue is full.Cannot insert %d \n",value);
        return;
    }
    if(front==-1 && rear==-1)
    {
        front=0;
        rear=0;
    }
    else
    {
        rear==(rear+1)%SIZE;

    }
    circularqueue[rear]=value;
    printf("Inserted: %d \n",value);

}
int delete()
{
    if(front==-1 && rear==-1 )
    {
        printf("Circular queue is empty.Cannot delete\n");
        return -1;
    }
    int item=circularqueue[front];
    if(front==rear)
    {
```

```
        front=-1;
        rear=-1;
    }
    else
    {
        front==(front+1)%SIZE;
    }
    printf("Deleted: %d \n",item);
    return item;
}
void display()
{
    if (front==-1 && rear==-1)
    {
        printf("Circular queue is empty \n");
        return;
    }
    printf("Circular queue contents: ");
    if(front<=rear)
    {
        for(int i=front;i<=rear;i++)
        {
            printf("%d \t",circularqueue[i]);
        }
        printf("\n");
    }
    else
    {
        for(int i=front;i<SIZE;i++)
        {
            printf("%d \t",circularqueue[i]);
        }
        for(int i=0;i<=rear;i++)
        {
             printf("%d \t",circularqueue[i]);
        }
```

```
        {
            printf("%d \t",circularqueue[i]);
        }
        for(int i=0;i<=rear;i++)
        {
             printf("%d \t",circularqueue[i]);
        }
        printf("\n");
    }
}
int main()
{
    int choice,value;
    do
    {
        printf("\n 1.INSERT \n 2.DELETE \n 3.DISPLAY \n 4.EXIT\n");
        printf("Enter your choice: ");
        scanf("%d",&choice);
        switch(choice)
        {
            case 1:printf("Enter the value to be inserted: ");
                   scanf("%d",&value);
                   insert(value);
                   break;
            case 2:delete();
                   break;
            case 3:display();
                   break;
            case 4:printf("Exiting\n");
                   break;
        }
    } while(choice!=4);
return 0;
}
```

```
 1.INSERT
 2.DELETE
 3.DISPLAY
 4.EXIT
Enter your choice: 1
Enter the value to be inserted: 12
Inserted: 12

 1.INSERT
 2.DELETE
 3.DISPLAY
 4.EXIT
Enter your choice: 1
Enter the value to be inserted: 23
Inserted: 23

 1.INSERT
 2.DELETE
 3.DISPLAY
 4.EXIT
Enter your choice: 2
Deleted: 0

 1.INSERT
 2.DELETE
 3.DISPLAY
 4.EXIT
Enter your choice: 2
Deleted: 0

 1.INSERT
 2.DELETE
 3.DISPLAY
 4.EXIT
Enter your choice: 3
Circular queue contents: 0      0       0       0       0

 1.INSERT
 2.DELETE
 3.DISPLAY
 4.EXIT
Enter your choice: 4
Exiting

Process returned 0 (0x0)   execution time : 14.938 s
Press any key to continue.
```