```
#include<stdio.h>
#define max 5
int front=-1,rear=-1,Q[max],ele;
void insert()
{
   if(rear==max-1||(rear+1)%max==front)
   {
      printf("Overflow!!");
      return;
   }
   printf("Enter element to insert:");
   scanf("%d",&ele);
   if(front==-1)
      front=0;
   rear=(rear+1)%max;
   Q[rear]=ele;
   printf("Element inserted!");
}
void delet()
{

   if(front==-1)
   {
      printf("Underflow!");
      return;
   }
   printf("Deleted item is %d",Q[front]);
   if(front==rear)
   {
      front=-1;
      rear=-1;
```

```
    }
    else

    {
       front=(front+1)%max;
    }


}
void display()
{
    int i;
    if(front==-1)
    {
       printf("Underflow!");
       return;
    }
    printf("Elements of Circular Queue are: ");
     i=front;
     while(1)
     {
        printf("%d ",Q[i]);
        if(i==rear)
          break;
        i=(i+1)%max;
     }
     printf("\n");

}
void main()
{
```

```
   int ch;
   do
   {
      printf("\n 1.Insert \n 2.Delete \n 3.Display \n 4.Exit \n");
      printf("Enter your choice:");
      scanf("%d",&ch);
      switch(ch)
      {
         case 1:insert();
                break;
         case 2:delet();
                break;
         case 3:display();
                break;
         case 4:printf("Exiting Program.....");
                 break;
         default : printf("invaild choice");

      }
   }while(ch!=4);
}
```

OUTPUT:

```
 1.Insert
 2.Delete
 3.Display
 4.Exit
Enter your choice:1
Enter element to insert:44
Element inserted!
 1.Insert
 2.Delete
 3.Display
 4.Exit
Enter your choice:1
Enter element to insert:32
Element inserted!
 1.Insert
 2.Delete
 3.Display
 4.Exit
Enter your choice:3
Elements of Circular Queue are: 44 32

 1.Insert
 2.Delete
 3.Display
 4.Exit
Enter your choice:2
Deleted item is 44
 1.Insert
 2.Delete
 3.Display
 4.Exit
Enter your choice:3
Elements of Circular Queue are: 32

 1.Insert
 2.Delete
 3.Display
 4.Exit
Enter your choice:4
Exiting Program.....
Process returned 4 (0x4)   execution time : 28.781 s
Press any key to continue.
```