Lab Program :- 4

* WAP to implement Circular queue :-

```
#include <stdio.h>
#include<Process.h>
# define QUE_SIZE 3
int item, front=0, rear=-1, q[QUE_SIZE], count=0;
void insert rear()
{
  if(count==QUE-SIZE)
  {
    Printf("Queue overflow\n");
    return;
  }
  rear=(rear+1)%QUE_SIZE;
  q[rear]=item;
  Count++;
}
int deletefront()
{
 if(count==0)return-1;
 item=q[front];
front=(front+1)%QUE_SIZE;
 Count=count-1;
 return item;
}
```

```
void displayq()
{
 int i,f;
 if (count ==0)
 {
  Printf("Queue is Empty\n");
  return;
 }
 f=front;
 Printf("contents of the Queue are :\n");
 for(i=1; i<=count; i++)
 {
  Printf("%d\n", q[f]);
  f=(f+1)%QUE_SIZE;
 }
}
int main()
{
 int choice;
 for(;;)
 {
  Printf("\n1:Insertrear\n2:Deletefront\n 3:Display\n4:Exit\n");
  Printf("Enter the choice\n");
  Scanf("%d", &choice);
  switch(choice)
  {
   case 1 : Printf("Enter the item to be inserted\n");
                 Scanf("%d", &item);
                 insertrear();
                 break;
  case 2 : item=deletefront();
              if(item = = 1)
              Printf("Queue is empty\n");
             else
              Printf("The Item Deleted is %d \n", item);
              break;
 case 3 : display Q();
            break;
 default : exit(0);
 }
 }
 return 0;
}
```