**ASSIGNMENT 07**

**NAME: Anupam Anant**

**Question 1**

**Write a program implementing insert, delete and display operation of Circular Queue.**

**Code**

#include<stdio.h>

#include<conio.h>

#define max 5

void insert();

void delet();

void display();

int a[max];

int rear=-1,front=0,count=0;

void main()

{

int n;

clrscr();

printf("\t\t1.Insert\n\t\t2.Delete\n\t\t3.Display\n\t\t4.Exit");

for(;;)

{

printf("\nEnter choice: ");

scanf("%d",&n);

switch(n)

{

case 1: insert();break;

case 2: delet();break;

case 3: display();break;

case 4: exit(0);

}

}

}

void insert()

{

int v;

if (count==max)

printf("\nQueue Overflow");

else

{

printf("\nEnter a number: ");

scanf("%d",&v);

rear++;

if(rear>max-1)

rear=0;

a[rear]=v;

count++;

}

}

void delet()

{

if(count==0)

printf("\nQueue Underflow");

else

{

printf("\n%d is deleted",a[front]);

front++;

if(front>max-1)

front=0;

count--;

}

}

void display()

{

int i;

if(count==0)

printf("\nQueue is empty");

else

{

if(rear>=front)

{

for(i=front;i<=rear;i++)

printf("%d ",a[i]);

}

if(front>rear)

{

for(i=front;i<=max-1;i++)

printf("%d ",a[i]);

for(i=0;i<=rear;i++)

printf("%d ",a[i]);

}

}

}