Lab program-4

```
#include <stdio.h>
#include <conio.h>
#include <process.h>
void insert_rear (int cq[10], int n, int *f,
                  int *r, int *count)
{
    if (*count == n)
        printf ("Queue overflow");
    int item;
    printf ("Enter item to be inserted\n");
    scanf ("%d", &item);
    *r = (*r+1) % n;
    cq[*r] = item;
    (*count)++;
}
void delete_front (int cq[10], int n, int *r,
                   int *f, int *count)
{
    if (*count == 0)
        printf ("Queue empty");
```

```
else
  {printf("The item deleted is =%d\n",
                                cq[*f]);
      *f=(*f+1)%n;
  }
      (*count)--;
}
Void display (int cq[],int n,int *r, int *f,
                              int *count)
{
    int i;
  if ( *count==0)
      printf ("Circular Queue is
                              empty");
  else
  {
      printf("The contents of
                              queue=");
  for (i=1;i<=*count;i++)
  {
      printf("%d \t", cq[*f]);
      *f=((*f+1)%n;
  }
  printf("\n");
}
```

```
int main()
{
    int c, i;
    int count=0;
    int r=-1;
    int f=0;
    int n;
    int q[10];
    printf("Enter size of queue");
    scanf("%d", &n);
    while (i!=4)
    {
        printf("1-Insert 2-Delete
                3-Display 4-Exit\n");
        printf("Enter Choice");
        scanf("%d", &c);
        switch(c)
        {
        case 1:
            insert_rear(q, n, &r, &f, &count);
            break;
```

```
case 2:
        deletefront (cq, n&r, &b, &count);
            break;
case 3:
        display (cq, n, &r, &b, &count);
            break;
case 4:
        exit(0);
default:
        printf ("Invalid choice");
    }
  }
}
```