19/10/20

LAB Program - 3

Week 3

Prasav R

1BM19CS115

Circular Queue :

```
#include <stdio.h>
#include <stdlib.h>
#define que_size 3
int
item, front=0, rear=-1, q[que_size], count=0
void insertrear()
{
  if (count == que_size)
  {
    printf ("Queue overflow");
    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");
    return;
}
f=front;
printf("contents of queue -\n");
for(i=0;i<=count;i++)
{
    printf("%d\n",q[f]);
    f=(f+1)%que_size;
}
}
int main()
{
int choice;
for(;;)
{
printf("_____");
printf("\n1) Insert rear \n2) Delete front
\n 3) Display \n4) exit \n");
printf("Enter the choice:");
scanf("%d",&choice);
switch(choice)
{
case 1: printf("Enter the item to be inserted");
scanf("%d",&item);
insertrear();
break;
case 2: item==deletefront();
    if(item==-1)
    printf("queue is empty\n");
```

```
            else
            printf (" item deleted is %d \n", item);
            break;
        case 3: display();
            break;
        default: exit(0);
    }
}
return 0;
}
```