lab-Program-4:-

```
#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=1; i<=count; i++)
 {
    printf("%d \n",q[f]);
     f=(f+1)%que_size;
   }
}
int main()
{
 int choice;
   for(;;)
  {
   printf("\n 1. Insert rear \n 2. Delete front \n
          3. Display \n 4. exit \n");
```

```
printf("Enter the choice : ");
scanf("%d", &choice);
switch(choice)
{
case 1: printf("Enter the item to be inserted");
        scanf("%d", &item);
        insert rear();
        break;
case 2: ~~printf("Enter~~ item = delete front();
        if(item == -1)
        printf("queue is empty \n");
        else
        printf("item is deleted is %d \n", item);
        break;
case 3: display q();
        break;
default : exit(0);
}
}
}
```