LAB 5. Queue

1. Insert.
2. Delete
3. Display.

```
#include <stdio.h>
#include <process.h>
#include <conio.h>
#define QUE_SIZE 5
int item, front=0, rear=-1, q[10];
void insert()
{   if(rear==QUE_SIZE-1)
    {   printf("Queue overflow\n");
        return;
    }
    rear=rear+1;
    q[rear]=item;
}
int delete()
{   if(front>rear)
    {   front=0;
        rear=-1;
        return(-1);
    }
    return(q[front++]);
}
void display()
{
    if(front>rear)
    {   printf("Queue is empty\n");
        return;
    }
```

```
    printf("contents of queue : \n");
    for(int i = front ; i <= rear; i++)
        printf("%d \n", q[i]);
}
void main()
{
    int n;
    for(;;)
    {
        printf("1. insert into queue \n 2. Delete
        from queue \n 3. display \n 4. exit \n");
        scanf("%d", &n);
        switch(n)
        {
            case 1: printf("Enter item\n");
                    scanf("%d", &item);
                    insert();
                    break;
            case 2: item = delete();
                    if(item == -1)
                    printf("queue is empty\n");
                    else
                    printf("item deleted : %d \n",
                                        item);
                    break;
            case 3: display();
                    break;
            default: exit(0);
        }
    }
}
```