

LAB 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=0; i<=count; i++)

& printf("%d\n", q[f]);

f=(f+1)%que-size;

>>

void main() {

int choice;

for(;;)

& printf("\n 1. Insert rear\n 2. Delete front
 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);

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: displayq(); break;

default: exit(0);

>>

getch();

>