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#include <stdio.h>
#define Max 3
int queue_arr[Max];
int front = -1;
int rear = -1;
void insert(int item)
{
    if ((front == 0 && rear == Max-1) ||
        (front == rear+1))
    {
        printf("Queue Overflow\n");
        return;
    }
    if (front == -1)
    {
        front = 0;
        rear = 0;
    }
    else
    {
        if (rear == Max-1)
            rear = 0;
        else
            rear = rear+1;
    }
    queue_arr[rear] = item;
}
void del()
{
    if (front == -1)
    {
        printf("Queue Underflow\n");
        return;
    }
    printf("Element deleted from queue is = %d\n", queue_arr[front]);
}
```

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if (front == rear)
{
    front = -1;
    rear = -1;
}
else
{
    if (front == Max-1)
        front = 0;
    else
        front = front + 1;
}
}

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void display ()
{

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    int front_pos = front, rear_pos = rear;
    if (front == -1)
    {

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        printf("Queue is empty\n"); return;
    }

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    printf("Queue elements : \n");

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    if (front_pos <= rear_pos)

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    {
        while (front_pos <= rear_pos)
        {

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            printf("%d", queue_arr[front_pos]);
            front_pos++;
        }
    }

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    else
    {

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        while (front_pos <= Max-1)
        {

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            printf("%d", queue_arr[front_pos]);
            front_pos++;
        }
    }

```

```

    front_pos = 0;
}

```

```

while (front-pos <= rear-pos)
{
    printf("%d", queue_arr[front-pos]);
    front-pos++;
}

printf("\n");
}

int main()
{
    int choice, item;
    do {
        printf("1. Insert\n");
        printf("2. Delete\n");
        printf("3. Display\n");
        printf("4. Quit\n");
        printf("Enter your choice : ");
        scanf("%d", &choice);
        switch (choice)
        {
            case 1:
                printf("Input the element for\ninsertion in queue : ");
                scanf("%d", &item);
                insert(item);
                break;
            case 2:
                del();
                break;
            case 3:
                display();
                break;
            case 4:
                break;
            default:

```



```
} printf("Wrong choice\n");  
while (choice != 4);  
return 0;  
}
```