

Lab - Queue

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```
1. #include <stdio.h>
#include <process.h>
#define int Que_size 2
int item, front = 0, rear = -1, q[10];

void insertrear()
{
    if (rear == Que_size - 1)
    {
        printf("Queue Overflow\n");
        return;
    }
    rear = rear + 1;
    q[rear] = item;
}

int deletefront()
{
    if (front > rear)
    {
        front = 0;
        front
        rear = -1;
        return -1;
    }
}
```

```
return q[front + 1];  
}
```

```
void display Q()  
{
```

```
    int i;  
    if (front > rear)  
    {
```

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

```
    printf("Contents of Queue\n");  
    for(i = front; i <= rear; i++)  
    {
```

```
        printf("%d\n", q[i]);
```

```
    }
```

```
}
```

```
void main()
```

```
{
```

```
    int choice;
```

```
    for(i = 0;
```

```
{
```

```
    printf("1: insert rear 2: delete front  
          3: display 4: exit\n");
```



```
printf ("Enter the choice \n");
```

```
scanf ("%d", &choice);
```

```
Switch (choice)
```

```
{
```

```
Case 1 : printf ("Enter the item to be  
                  inserted \n");
```

```
scanf ("%d", &item);
```

```
insert rear ();
```

```
break;
```

```
Case 2 : item = delete front ();
```

```
if (item == -1) {
```

```
printf ("Queue is empty \n");
```

```
else {
```

```
printf ("item deleted = %d \n",  
          item); }
```

```
break;
```

```
Case 3 : display q ();
```

```
break;
```

```
default : exit (0);
```

```
}
```

```
}
```

```
}
```