

Queue

classmate

Date _____

Page _____

```
#include <stdio.h>
```

```
int max = 3;
```

```
int Cq[5];
```

```
int f = -1;
```

```
int r = -1;
```

```
void insert(&int item)
```

```
{ if ((f == 0 && r == max-1) || (f == r+1))
```

```
{ printf("Overflow"); return; }
```

```
if (f == -1)
```

```
{ f = 0; r = 0; }
```

```
else
```

```
{ if (r == max-1)
```

```
r = 0;
```

```
else
```

```
r = 0; r = r++; }
```

```
Cq[r] = item; }
```

```
void del()
```

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

```
{ printf("Underflow"); return; }
```



```
printf("Element deleted %d", cq[f]);  
if (f == n)  
{  
    f = -1;  
    n = -1; }  
else
```

```
{  
    if (f == max-1)  
        f = 0;  
    else  
        f = f++;
```

```
void display()  
{  
    int fp = f; n_p = n;  
    if (f == -1)  
        printf("Empty"); return; }  
printf("element");
```

```
if (fp <= n_p)  
while (f-p <= n_p)  
{  
    printf("%d", cq[fp]); fp++; }
```

```
else  
{  
    while (fp <= max-1)  
        printf("%d", cq[fp]); fp++; }  
f-p = 0;
```



```
while (j-p <= a-p)
{ printf("%d", cg[j-p]); j-p++; }
}
```

```
int main()
{ int c, item;
```

```
do { printf("1 insert");
    printf("2 delete");
    printf("3 display");
    printf("4 quit");
    scanf("%d", &c);
```

```
switch (c)
```

```
{ case 1: scanf("%d", &item); insert(item);
    break;
```

```
case 2: delete(); break;
```

```
case 3: display(); break;
```

```
case 4: break;
```

```
default: printf("Invalid"); }
```

```
while (c != 4); return 0; }
```