

```
#include <stdio.h>
#include <stdlib.h>
#define SIZE 3
int front = -1;
int rear = -1;
int Q(SIZE);
void EnQ(int);
int DeQ();
void display();
int main(int argc, char **argv)
{
    int choice; item;
    do
    {
        printf("\nEnter choice: 1.EnQ 2.DeQ 3.display 4.Exit:");
        scanf("%d", &choice);
        switch(choice)
        {
            case 1: printf("Enter the element to be added to the Q:");
                    scanf("%d", &item);
                    EnQ(item);
                    break;
            case 2: item = DeQ();
                    if(item == -1)
                        printf("Q is empty");
                    else
                        printf("\nItem removed from Q: %d", item);
                    break;
            case 3: display();
                    break;
            case 4: exit(0);
        }
    }
    while(choice != 4);
    return 0;
}
```

```
}  
void Enq (int el)  
{  
    if (rear == (Size - 1))  
        printf("Q is full");  
    else  
    {  
        if (rear == -1)  
        {  
            front = 0;  
        }  
        rear += 1;  
        Q[rear] = el;  
    }  
}
```

```
{  
    int Deq()  
    {  
        int item;  
        if (front == -1)  
            return -1;  
        else  
        {  
            item = Q[front];  
            front++;  
            if (front > rear)  
            {  
                front = -1;  
                rear = -1;  
            }  
            return item;  
        }  
    }  
}
```

```
void display()  
{  
    int i;  
    classmate
```

DATE

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```
if (front == -1)
    printf("Q is empty\n");
else
{
    printf("\nQ content are:");
    for (i = front; i <= rear; i++)
        printf("%d\t", Q[i]);
}
}
```