

```
#include <stdio.h>
#define maxsize 5
void enqueue (int *queue, int *front,
              int *rear)
```

```
{
    int ele;
    if (*rear >= maxsize - 1)
    { printf ("Queue overflow");
      return; }
    if (*front == -1)
```

```
{ (*front)++; }
```

```
(*rear)++;
```

```
printf ("Enter the element ");
```

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

```
(*queue + *rear) = ele; }
```

```
void display (int *queue, int front, int rear)
```

```
{ if (front == -1 && rear == -1)
  printf ("\n Queue is Empty");
```

```
else { printf ("\n Elements in Queue are ");
```

```
for (int i = front; i <= rear; i++)
{
```

```
    printf ("%d", *(queue + i));
}
```

```
}
```



```

void deque (int *queue, int *front, int *rear)
{
    int ele;
    if (*front == -1 && *rear == -1)
    {
        printf ("Queue Underflow");
        return;
    }
    else if (*front == *rear)
    {
        ele = *(queue + *front);
        *front = -1;
        *rear = -1;
    }
    else {
        ele = *(queue + *front);
        (*front)++;
    }
    printf ("Deleted element = %d", ele);
}

void main()
{
    int front = -1, rear = -1;
    int choice;
    printf ("1. Enqueue\n 2. Dequeue\n 3. Display\n 4. Exit\n");
    do {
        printf ("Enter Choice\n");
        scanf ("%d", &choice);
        switch (choice)
        {
            case 1: enqueue (queue, &front, &rear);
                    break;
            case 2: deque (queue, &front, &rear);
                    break;
            case 3: display (queue, front, rear);
                    break;
        }
    } while (choice != 4);
}

```