

```
#include <stdio.h>
#define MAX 5
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 deletion ( )
{
    if (front == -1)
    {
        printf ("Queue Underflow\n");
        return;
    }
}
```


printf ("Element deleted from the queue is : %d\n",
queue_arr [front]);

if (front == rear)

{

front = -1;

rear = -1;

}

else

{

if (front == MAX - 1)

front = 0;

else

front = front + 1;

}

}

void display()

{

int front_pos = front, rear_pos = rear;

if (front == -1)

{

printf ("Queue is empty\n");

return;

}

printf ("Queue elements : \n");

if (front_pos <= rear_pos)

reverse [front_pos <= rear_pos];

front_pos++

}

}

else

{

while (front_pos <= MAX - 1)

{

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

front_pos++;

front_pos = 0;

while (front_pos <= rear_pos)

{

printf ("%d\n", 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 \n");  
    scanf ("%d", & item);  
    insert (item);  
    break;
```

```
case 2;  
    deletion ();  
    break;
```

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

```
case 4;  
    break;  
default;  
    printf ("Wrong choice \n");  
    }
```

```
while (choice != 4);
```

```
return b;
```

```
}
```