

Circular queue :-

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

```
#define size 10
```

```
int front = 0, rear = 0, count = 0;
```

```
int q[size];
```

```
void InsertRear(int value) {
```

```
    count == size  
    if (rear == size) {
```

```
        printf("queue overflow\n");  
        return;
```

```
    }  
    rear %= size;  
    q[rear++] = value;  
    count++;
```

```
}
```

```
int deleteFront() {
```

```
    count == 0  
    if (front == rear) {
```

```
        printf("queue underflow\n");  
        return;
```

```
}
```

```
    int value = q[front++];  
    front %= size; count --;  
    return value;
```

```
}
```

```
void display() {
```

```
    if (front == rear) {  
        printf("null");  
        return;
```

```
}
```

```
    int i = 0, f = front;
```

```
    for (i = 0; i < count; i++) {
```

```
        printf("%d ", q[f++]);  
        f %= size;
```

```
}
```

```
    printf("\n");
```

```

    }
    int main() {
        int ch, value;
        while (1) {
            printf("Enter the option: \n 1 - insert at rear \n 2 - delete front \n 3 - display \n 4 - exit \n");
            scanf("%d", &ch);
            switch(ch) {
                case 1:
                    printf("Enter no. \n");
                    scanf("%d", &value);
                    insertRear(value);
                    break;
                case 2:
                    printf("Deleted value = %d \n", deleteFront());
                    break;
                case 3:
                    display();
                    break;
                case 4:
                default:
                    return 0;
            }
        }
    }
}

```