

## QUEUE USING ARRAY:

```
#include <stdio.h>
#include <stdlib.h>
#define size 5
int queue[size];
int front=0,rear=0;
void enqueue(int val){
    if (rear==size){
        printf("queue overflow\n");
        return;
    }
    queue[rear]=val;
    rear++;
    printf("Inserted %d into queue.\n", val);
}
void dequeue(){
    if(rear==0&&front==0){
        printf("queue empty\n");
        return;
    }
    printf("Deleted %d from queue.\n", queue[front]);
    front++;
}
void display(){
    if(rear==0&&front==0){
        printf("queue empty\n");
        return;
    }
    printf("Queue elements: ");
    for (int i=front;i<=rear;i++)
        printf("%d ",queue[i]);
    printf("\n");
}
int main(){
    int choice,value;
    printf("QUEUE OPERATION\n");
    while (1) {
        printf("\n1. Enqueue\n2. Dequeue\n3. Display\n4. Exit\n");
        printf("Enter your choice: ");
        scanf("%d", &choice);

        switch (choice) {
            case 1:
                printf("Enter value to insert: ");
                scanf("%d",&value);
                enqueue(value);
                break;
            case 2:
                dequeue();
                break;
            case 3:
                display();
                break;
            case 4:
```

```

        printf("Exiting program...\n");
        exit(0);
    default:
        printf("\n? Invalid choice! Try again.\n");
    }
}
return 0;
}

```

## OUTPUT:

```

QUEUE OPERATION
1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 2
Inserted 2 into queue.

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 3
Inserted 3 into queue.

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 5
Inserted 5 into queue.

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 6
Inserted 6 into queue.

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 1
Enter value to insert: 5
Inserted 5 into queue.

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 3
Queue elements: 2 3 5 6 5 0

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 3
Queue elements: 2 3 5 6 5 0

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice: 2
Deleted 2 from queue.

1. Enqueue
2. Dequeue
3. Display
4. Exit
Enter your choice:

```