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#include <stdio.h>
#include <stdlib.h>

#define MAX 6

int queue[MAX];
int front = -1;
int rear = -1;

void enqueue(int value)
{
    if(rear==MAX-1)
    {
        printf("queue overflow");
        return;
    }
    if(front==-1){
        front=0;
    }
    rear++;
    queue[rear]=value;
    printf("%d enqueued",value);
}

void dequeue()
{
    if(front==-1 || front>rear)
    {
        printf("queue underflow");
    }
    else
    {
        int x=queue[front];
        front++;
        printf("The value dequeued is %d",x);
    }
}

void display() {
    if (front == -1) {
        printf("Queue is empty\n");
        return;
    }

    printf("Queue elements: ");
    int i = front;
    while (1) {
        printf("%d ", queue[i]);
        if (i == rear)
            break;
        i++;
    }
}

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    }
    printf("\n");
}
int main()
{
    int n;
    while (1) {
        printf("\n1. enqueue  2. dequeue  3. display  4. Exit\n");
        scanf("%d", &n);
        switch (n) {
            case 1: {
                int value;
                printf("Enter value: ");
                scanf("%d", &value);
                enqueue(value);
                break;
            }
            case 2:
                deque();
                break;
            case 3:
                display();
                break;
            case 4:
                exit(0);
            default:
                printf("Invalid choice\n");
        }
    }
    return 0;
}

```