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

struct Node {
    int data;
    struct Node* next;
};

struct Queue {
    struct Node* front;
    struct Node* rear;
};

void initQueue(struct Queue* q) {
    q->front = NULL;
    q->rear = NULL;
}

int isEmpty(struct Queue* q) {
    return (q->front == NULL);
}

void enqueue(struct Queue* q, int value) {
    struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));

    if (newNode == NULL) {
        printf("Heap Overflow\n");
        return;
    }

    newNode->data = value;
    newNode->next = NULL;

    if (q->rear == NULL) {
        q->front = q->rear = newNode;
        return;
    }

    q->rear->next = newNode;
    q->rear = newNode;
}

void dequeue(struct Queue* q) {
    if (isEmpty(q)) {

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        printf("Queue Underflow\n");
        return;
    }

    struct Node* temp = q->front;
    printf("Deleted element: %d\n", temp->data);

    q->front = q->front->next;

    if (q->front == NULL)
        q->rear = NULL;

    free(temp);
}

void peek(struct Queue* q) {
    if (isEmpty(q)) {
        printf("Queue is Empty\n");
        return;
    }
    printf("Front element: %d\n", q->front->data);
}

void display(struct Queue* q) {
    if (isEmpty(q)) {
        printf("Queue is Empty\n");
        return;
    }

    struct Node* temp = q->front;
    printf("Queue elements: ");

    while (temp != NULL) {
        printf("%d -> ", temp->data);
        temp = temp->next;
    }
    printf("NULL\n");
}

int main() {
    struct Queue q;
    initQueue(&q);
    enqueue(&q, 10);
    enqueue(&q, 20);

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    enqueue(&q, 30);  
    display(&q);  
    dequeue(&q);  
    display(&q);  
    peek(&q);  
  
    return 0;  
}
```