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#include<stdio.h>
#include<stdlib.h>
#define MAX_SIZE 100
typedef struct{
	int items[MAX_SIZE];
	int front;
	int rear;
}Queue;
void intiqueue(Queue *queue)
{
	queue->front=-1;
	queue->rear=-1;
}
int isempty(Queue *queue)
{
	return (queue->front==-1&&queue->rear==-1);

}
int isfull(Queue *queue)
{
	return (queue->rear==MAX_SIZE-1);
}
void enqueue(Queue *queue,int val)
{
	if (isfull(queue))
	{
		printf("The Queue is full, can't enqueue %d",val);
		return;
	}
	if(isempty(queue))
	{
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                queue->front=0;
        }
        queue->rear++;
        queue->items[queue->rear]=val;
        printf("Enqueued %d",val);

}
int dequeue(Queue *queue)
{
        if(isempty(queue))
        {
                printf("The Queue is empty, can't dequeue an empty queue");
                return -1;
        }
        int remval=queue->items[queue->front];
        if(queue->front==queue->rear)
        {
                queue->front=-1;
                queue->rear=-1;
        }
        else
        {
                queue->front++;
        }
        printf("Dequeued %d",remval);
        return remval;
}
void printqueue(Queue *queue)
{
        if(isempty(queue))
        {
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                printf("The Queue is empty.\n");
                return;
        }
        printf("Current Queue: \n");
        for(int i=queue->front;i<=queue->rear;i++)
        {
                printf("%d ",queue->items[i]);
        }
        printf("\n");
}
int main()
{
        Queue queue;
        intiqueue(&queue);
        int choic,value;
        do{
                printf("\nQueue Operations:");
                printf("\n1.Enqueue:");
                printf("\n2.Dequeue:");
                printf("\n3.Print the Queue:");
                printf("\n4.Exit");
                printf("\nEnter your choice (1 or 2 or 3 or 4): ");
                scanf("%d",&choic);
                switch(choic)
                {
                        case 1:
                                printf("Enter the value to enqueue: \n");
                                scanf("%d",&value);
                                enqueue(&queue,value);
                                break;
                        case 2:
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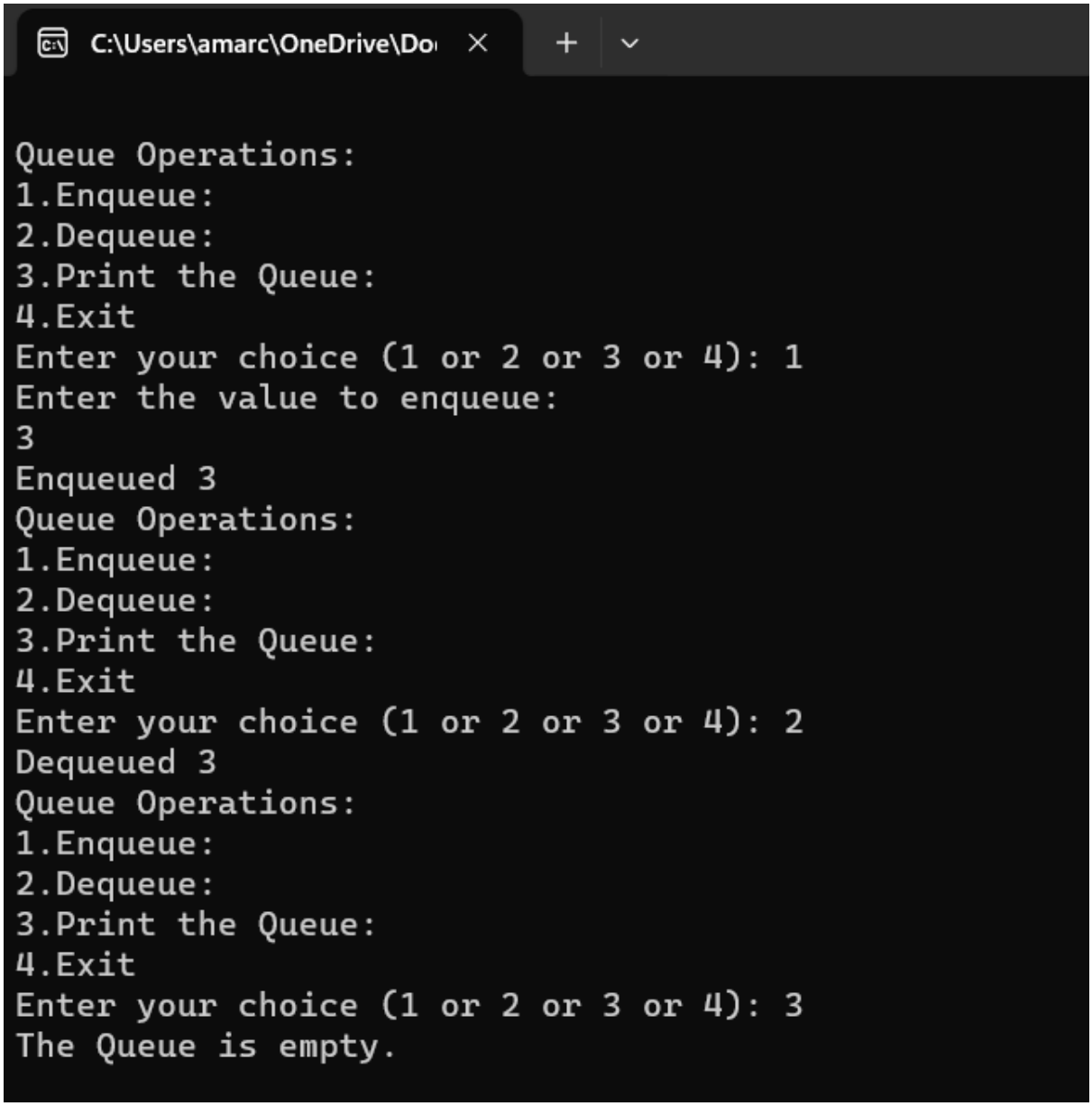
                dequeue(&queue);
                break;
            case 3:
                printqueue(&queue);
                break;
            case 4:
                printf("\nExiting...");
                break;
            default:
                printf("Invalid choice. Please enter again!");
        }
        }while(choic!=4);
            printf("The Final Queue: \n");
            printqueue(&queue);
}
```


C:\Users\amarc\OneDrive\Do
Queue Operations:
1.Enqueue:
2.Dequeue:
3.Print the Queue:
4.Exit
Enter your choice (1 or 2 or 3 or 4): 1
Enter the value to enqueue:
3
Enqueued 3
Queue Operations:
1.Enqueue:
2.Dequeue:
3.Print the Queue:
4.Exit
Enter your choice (1 or 2 or 3 or 4): 2
Dequeued 3
Queue Operations:
1.Enqueue:
2.Dequeue:
3.Print the Queue:
4.Exit
Enter your choice (1 or 2 or 3 or 4): 3
The Queue is empty.