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#include <stdio.h>
#define size 5
int arr[size];
int front=-1, rear=-1;

void enqueue(int data){
    if (rear==size-1){
        printf("\nQueue is Overflow...!");
        printf("-----");
        return;
    }
    else{
        if (front==-1 && rear==-1)
        {
            front=rear=0;
            arr[rear]=data;
        }
        else
        {
            arr[++rear]=data;
        }
    }
}

void dequeue() {
    if (front==-1 && rear==-1)//if queue is empty
    {
        printf("Queue is Empty!!");
        printf("-----");
        return 0;
    }
    else if(front==rear)//if queue has single element
    {
        printf("\nDeleted : %d\n", arr[front]);
        front=rear=-1;
    }

    else
    {
        printf("\nDeleted : %d\n", arr[front++]);
    }
}

void display(){
    if ((front==-1)&&(rear==-1)){
        printf("The Queue is empty..!\n");
        printf("-----");
        return 0;
    }
    else{
        for(int i=front; i<=rear; i++){
            printf("\n%d\n", arr[i]);
        }
    }
}

int main() {
    int x, data;

    while(1)
    {
        printf("\nQueue operations\n1) Enqueue\n2) Dequeue\n3) Display\n4) Exit\nEnter the Queue operations:");

```

```
scanf("%d",&x);
switch(x)
{
case 1:
    printf("Enter the inserting element:");
    scanf("%d",&data);
    enqueue(data);
    break;
case 2:
    dequeue();
    break;
case 3:
    display();
    break;
case 4:
    printf("Exited...!");
    printf("\n-----");
    exit(0);
default:
    printf("Invalid choice.Please enter 1 to 5");
    break;
}
}
```