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#include"queue.h"
queue makenullqueue(int sz)
{
    queue t;
    t=(queue)malloc(sizeof(struct arrqueue));
    t->a=(int *)malloc(sizeof(int)*sz);
    t->m=sz;
    t->f=0;
    t->r=0;
    return t;
}
void printoptions()
{
    printf("\n0.Exit");
    printf("\n1.Enqueue");
    printf("\n2.DeQueue");
}
int getoption()
{
    int opt;
    printf("\nEnter an Option:");
    scanf("%d",&opt);
    return opt;
}
position frontpos(queue q)
{
    return q->f;
}
position rearpos(queue q)
{
    return q->r;
}
position nextpos(queue q,position p)
{
    return p+1;
}
int isempty(queue q)
{
    if(q->r==0)

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        return 1;
    return 0;
}
int isfull(queue q)
{
    if(q->r==q->m)
        return 1;
    return 0;
}
void enqueue(queue q, element e)
{
    q->a[q->r]=e;
    q->r++;
}
element dequeue(queue q)
{
    int i;
    element e;
    e=q->a[q->f];

    for(i=frontpos(q); i<rearpos(q); i=nextpos(q, i))
        q->a[i]=q->a[i+1];
    q->r--;
    return e;
}
void printqueue(queue q)
{
    position i;
    printf("\nElements in the queue are:\n");

    for(i=frontpos(q); i<rearpos(q); i=nextpos(q, i))
        printf("%d ", q->a[i]);
}

```