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LAB 3

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```
#include <stdio.h>
#define maxsize 4
void enqueue(int *queue, int*front, int*rear)
{
int ele;
if (*rear >= maxsize-1)
{
printf("Queue Overflow\n");
return;
}
if(*front==-1)
{ (*front++);
} (*rear++);
printf("\n Enter the element: \n");
scanf("%d",&ele);
*(queue+*rear)=ele;
}
void display(int *queue, int front, int rear)
{
if(front==-1 && rear==-1)
printf("\n Queue is empty");
else
{
printf("\n Elements in Queue are:\n");
for(int i=front; i<=rear; i++)
{
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```
printf("%d", *(queue+i));
}}}
void dequeue (int *queue, int *front, int *rear)
{
int ele;
if(*front==-1 && *rear==-1)
{
printf("\n Queue underflow.");
return; }
else if (*front==*rear)
{
ele = *(queue + *front);
*front = -1;
*rear = -1;
}
else {
ele = *(queue+*front);
(*front)++;
}
printf ("\n Deleted Element = %d", ele);
}
void main()
{
int front1 = -1, rear1 = -1
int queue1[max size];
```

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```
int choice;
printf ("\n [1] Insert");
printf ("\n [2] Delete");
printf ("\n [3] Display");
printf ("\n [4] Exit");
do
{
printf ("\n Enter your choice = ");
scanf ("%d", &choice);

switch(choice)
{
case 1: enqueue(queue1, &front1, &rear1);
break;
case 2: dequeue(queue1, &front1, &rear1);
break;
case 3: display(queue1, front1, rear1);
}
}
while(choice != 4);
}
```