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Lab Test:- AOS lab Test

```
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int front = -1, rear = -1;
int queue[100];
int main;
void enqueue(int);
void dequeue();
void display();
int main()
{
    int choice, item;
    printf("Enter the no of calls\n");
    scanf("%d", &main);
    do {
        printf("\n 1. Insert  2. Delete\n 3. Display  4. Exit\n");
        printf("Enter choice: ");
        scanf("%d", &choice);
        switch (choice)
        {
            case 1: if ((front == 0 & rear == main - 1) || (front == rear + 1))
```

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```

{
    printf ("Ame full call later\n");
}
else {
    printf ("Enter call no: \n");
    scanf ("%d", &item);
    enqueue(item);
}
break;
case 2: dequeue();
break;
case 3: display;
break;
case 4: exit(0);
default: printf ("Invalid choice\n");
}
while (choice != 4)
    return 0;
}

```

```

void enqueue(int ele)
{
    if ((front == rear + 1) || (front == 0 && rear == max - 1))
        printf ("System reached max capacity. Please call later\n");
    else {
        int p_no;
        char name[100];
        if (front == -1)
            front = 0;
        rear = (rear + 1) % max;
    }
}

```

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printf ("Enter name and phone no\n");
scanf ("%s", name);
scanf ("%d", & p.no);
queue[rear] = & p.no;
printf ("you are in queue\n");
}

void delete()
{
    int item;
    if ((front == -1) && (rear == -1))
    {
        printf ("Queue empty, you have no calls\n");
        return;
    }
    else {
        item = queue[front];
        if (front == rear)
        {
            front = -1;
            rear = -1;
        }
        else {
            front = (front + 1) % max;
        }
        printf ("call deleted\n");
        return;
    }
}

```

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void display ()

{ int i;

{ if (front == -1 &amp; rear == -1)

{ printf ("Queue empty, you  
have no calls in");

return;

else {

printf ("Queue call details: \n");

for (i = front; i != rear;

i = (i+1) % max)

{

printf ("Customer name: ", name[i]);

printf ("Phone no: ", phone[i]);

printf ("\n", square [rear]);

}

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