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**ISLAMABAD
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Data Structure and Algorithms (CS13217)

Lab Report

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Experiment # 2

Queue with Array implementation

Objective

The objective of this session is to understand the various operations on queues using array structure in C++.

Software Tool

1. Language: C++

1 Theory

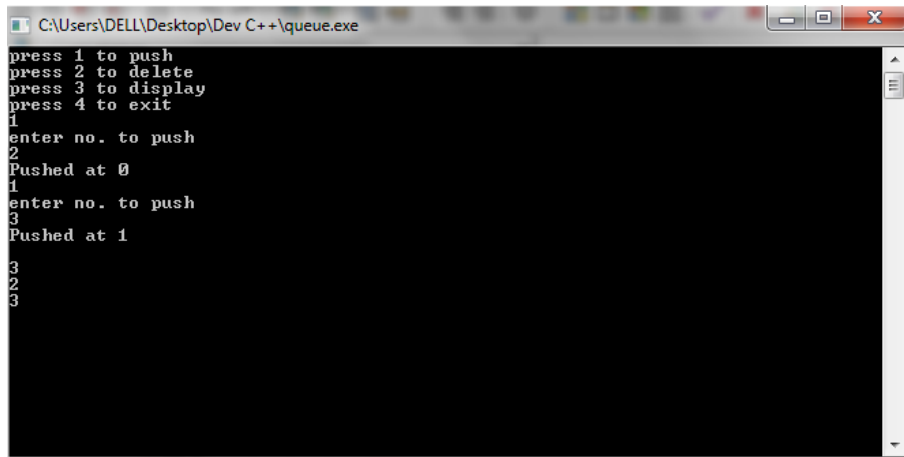
2 Task

2.1 Procedure: Task 2

Write a C++ code to perform insertion and deletion in queue using arrays

Create a complete menu for the above options and also create option for reusing it.

```
#include<iostream>
#include<queue>
using namespace std;
int main()
{
    int x=-1,y=0;
    int arr[10];
    char op;
    cout<<"press 1 to push"<<endl;
    cout<<"press 2 to delete"<<endl;
    cout<<"press 3 to display"<<endl;
    cout<<"press 4 to exit"<<endl;
    line :
        cin>>op;
```



```
C:\Users\DELL\Desktop\Dev C++\queue.exe
press 1 to push
press 2 to delete
press 3 to display
press 4 to exit
1
enter no. to push
2
Pushed at 0
1
enter no. to push
3
Pushed at 1
3
2
3
```

Figure 1: Link List

```
switch(op){
    case '1':
        cout<<"enter no. to push"<<endl;
        x++;
        cin>>arr[x];
        cout<<"Pushed at "<<x<<endl;
        break;
    case '2':
        cout<<" deleting"<<endl;
        y++;
        break;
    case '3':
        for (int i=0;i<=x;i++)
        {
            cout<<arr[i]<<endl;
        }
        break;
    case '4':
        exit;
}
goto line;
}
```

3 Conclusion

In this lab we learned how to create Queue using array display it on a screen and its various functions like displaying, deleting and inserting.