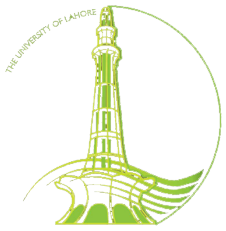

THE UNIVERSITY OF LAHORE
ISLAMABAD CAMPUS

Data Structure and Algorithms (CS13217)

Lab Report

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Dated:	30-04-2018
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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;
```

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 and display it on a screen and its various functions.