Experiment E-29

Code:

```cpp
#include <iostream>
using namespace std;
const int Max=10;
class queue{
    private:
    int arr[Max];
    int front,rear;
    public:
    queue(){
        front=-1;
        rear=-1;
    }
    void addq(int ele);
    int delq();
    void display();
};
void queue::addq(int ele){
    if(rear==Max-1){
        cout<<"\n Queue is full \n"<<endl;
        return;
    }
    rear++;
    arr[rear]=ele;
```

```cpp
        if(front == -1){
            front=0;
        }
}
int queue::delq(){
    if(front==-1){
        cout<<"\n Queue is empty \n"<<endl;
        return -1;
    }
    int value=arr[front];
    arr[front]=0;
    if(front==rear){
        front=rear=-1;
    }
    else{
        front++;
    }
    return value;
}
void queue::display(){
    if(front==-1 && rear==-1){
        cout<<"Queue is empty. \n";
    }
    else{
        for(int i=front;i<=rear;i++){
            cout<<arr[i]<<" ";
        }
```

```cpp
        cout<<"\n";
    }
}
int main (){
    queue q;
    int select,ele;
    do
    {
        cout<<"\n 1.Insert Job\n 2.Delete Job\n 3.Display\n 4.Exit\n Enter your choice : ";
            cin>>select;
        switch (select)
        {
        case 1:
            cout<<"Enter data:";
            cin>>ele;
            q.addq(ele);
            break;
        case 2:
            int n;
            n=q.delq();
            if (n!=-1){
                cout<<"deleted job:"<<n;
            }
            break;
        case 3:
            cout<<"\n Queue contains:";
            q.display();
```

```cpp
                break;
            case 4:
                cout<<"\n Exiting Program...";
                break;
        }
    } while (select!=4);
    return 0;
}
```

Output:

1.Insert Job

2.Delete Job

3.Display

4.Exit

 Enter your choice : 1

Enter data:24

 1.Insert Job

2.Delete Job

3.Display

4.Exit

 Enter your choice : 1

Enter data:36

 1.Insert Job

2.Delete Job

3.Display

4.Exit

Enter your choice : 1

Enter data:8

1.Insert Job

2.Delete Job

3.Display

4.Exit

Enter your choice : 3

Queue contains:24 36 8

1.Insert Job

2.Delete Job

3.Display

4.Exit

Enter your choice : 2

deleted job:24

1.Insert Job

2.Delete Job

3.Display

4.Exit

Enter your choice : 3

Queue contains:36 8

1.Insert Job

2.Delete Job

3.Display

4.Exit

Enter your choice : 4

Exiting Program...