Assignment No:- 4

Assignment Title :- Implementation of program based on the Queue.

Roll No :- 156

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```
#include<iostream.h>
#include<conio.h>
class QUEUE_156
{
	private:
		int A[20],size,front,rear;
	public:
		QUEUE_156(int);
		int ADD_QUEUE_156(int);
		int DEL_QUEUE_156();
		void VIEW_ALL_156();
};
QUEUE_156::QUEUE_156(int par)
{
	size = par;
	rear = front = 0;
}
QUEUE_156::ADD_QUEUE_156(int ele)
{
	if(rear == size)
	{
		cout<<endl<<"Queue is Full";
```

```
		return NULL;
	}
	else
	{
		if(front == 0)
		front = 1;
		rear = rear + 1;
		A[rear] = ele;
		return NULL;
	}
}
int QUEUE_156::DEL_QUEUE_156()
{
	if(front == 0)
	{
		cout<<endl<<"Queue is empty";
		return NULL;
	}
	else
	{
		int ele = A[front];
		if(front == rear)
			front = rear = 0;
		else
			front = front + 1;
			return ele;
	}
}
```

```
void QUEUE_156::VIEW_ALL_156()
{
	if(front == 0)
		cout<<endl<<"Queue is empty";
	else
	{
		cout<<endl<<"Queue elements are: ";
		for( int i = front; i <= rear; i++)
		{
			cout<<endl<<A[i]<<" ";
		}
	}
}
void MENU_156()
{
	int n, option, ele;
	cout<<endl<<"Enter the size of the QUEUE: ";
	cin>>n;
	QUEUE_156 obj(n);
	do
	{
		cout<<endl<<"_____________MENU_____________";
		cout<<endl<<"1.ADD_QUEUE";
		cout<<endl<<"2.DEL_QUEUE";
		cout<<endl<<"3.VIEW_QUEUE";
		cout<<endl<<"4.EXIT";
		cout<<endl<<"Choose option"<<endl;
		cin>>option;
```

```
		switch(option)
		{
			case 1:
				cout<<endl<<"Enter element to add: ";
				cin>>ele;
				obj.ADD_QUEUE_156(ele);
				break;
			case 2:
				cout<<endl<<"Deleted: "<<obj.DEL_QUEUE_156();
				break;
			case 3:
				obj.VIEW_ALL_156();
				break;
			case 4:
				return;
			default:
				cout<<endl<<"Invalid Option";
		}
	} while(1);
}
void main()
{
	clrscr();
	MENU_156();
	getch();
}
```