***DATA STUCTURES AND ALGORITHM***

***LAB-9***

Object: Code a menu based program of Queue using linked list which have the following options:

1. Enqueue
2. Dequeue
3. Display
4. Exit

**Code:**

#include<iostream>

#include<conio.h>

using namespace std;

struct node

{

int data;

struct node \*next;

}\*front=NULL,\*rear,\*temp;

void ins()

{

temp=new node;

cout<<"Enter data: ";

cin>>temp->data;

temp->next=NULL;

if(front==NULL)

front=rear=temp;

else

{

rear->next=temp;

rear=temp;

}

}

void del()

{

if(front==NULL)

cout<<"Queue is empty\n";

else

{

temp=front;

front=front->next;

cout<<"Deleted node is "<<temp->data<<"\n";

delete(temp);

}

}

void dis()

{

if(front==NULL)

cout<<"Queue is empty\n";

else

{

temp=front;

while(temp!=NULL)

{

cout<<temp->data<<"->";

temp=temp->next;

}

}

}

void main()

{

int ch;

while(1)

{

cout<<"\n\n\*\*\* Menu \*\*\*"<<"\n1.Insert\n2.Delete\n3.Display\n4.Exit";

cout<<"\n\nEnter your choice(1-4):";

cin>>ch;

cout<<"\n";

switch(ch)

{

case 1: ins();

break;

case 2: del();

break;

case 3: dis();

break;

case 4: exit(0);

break;

default: cout<<"Wrong Choice!!!";

}

}

getch();

}