**Aim:**

To write a menu driven program to insert , display & Delete elements in a Linked Queue.

**Source Code:**

#include<iostream.h>

#include<process.h>

struct Node

{

int info ;

Node \* next ;

}

\*front, \*newptr, \*save, \*ptr, \*rear;

Node \* Create\_New\_Node(int);

void Insert(Node\*) ;

void Display(Node\*) ;

void DelNode\_Q();

int main()

{

int ch;

char ch1;

system("cls");

front=rear=NULL;

int inf;

system("cls");

do

{

system("cls");

cout<<" \t\t\t Linked Queue Menu\n " ;

cout<<" \t 1. Insert\n ";

cout<<" \t 2. Delete\n ";

cout<<" \t 3. Display\n ";

cout<<" \t 4. Exit\n ";

cout<<" Enter your choice (1-4)... ";

cin>>ch;

switch(ch)

{

case 1 :

{

cout<<" \n Enter INFOrmation for the new node... ",

cin>>inf;

newptr=Create\_New\_Node(inf);

if(newptr==NULL)

{

cout<<" \nCannot Create new node!!! Aborting!!\n ";

exit(1);

}

Insert(newptr);

break;

}

case 2:

{

cout<<" \n The Linked-Queue now is ( Front...to...Rear ) : \n ";

Display(front);

cout<<" Want to delete First node ? (y/n)... ";

cin>>ch1;

if(ch1=='y'||ch1=='Y')

{

DelNode\_Q();

}

cout<<" \n The Linked-Queue now is ( Front...to...Rear ) : \n ";

Display(front);

system("pause");

break;

}

case 3:

{

cout<<" \n The Linked-Queue now is ( Front...to...Rear ) : \n ";

Display(front);

system("pause");

break;

}

case 4:

{

break;

}

default :

cout<<" Valid choices are 1...4 only\n ";

system("pause");

break ;

}

}while(ch!= 4);

return 0 ;

}

Node \* Create\_New\_Node(int n)

{

ptr=new Node;

ptr->info=n;

ptr->next=NULL;

return ptr;

}

void Insert(Node\* np)

{

if(front==NULL)

{

front=rear=np;

}

else

{

rear->next=np;

rear=np;

}

}

void DelNode\_Q()

{

if(front==NULL)

cout<<" UNDERFLOW !!!\n ";

else

{

ptr=front;

front=front->next;

delete ptr;

}

}

void Display( Node\* np)

{

while(np!=NULL)

{

cout<<np->info<<"->";

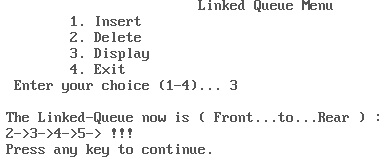
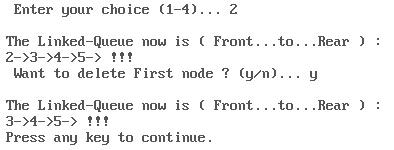
np=np->next;

}

cout<<" !!!\n ";

}

**Output :**

** **