DSA Project Report

Course Name:

Data Structure and Algorithm Lab

Project Topic:

CLI Based Facebook App

Group Members:

Muhammad Huzzifa Hafeez (2020-CS-606)

Hafiz Abdul Rehman (2020-CS-624)

Submitted To:

Mr. Aizaz Akmal

UNIVERSITY OF ENGNIEERING AND TECNOLOGY
LAHORE, NEW CAMPUS

Contents

Classes **3**
Personal Tab **4**
Data Structure: 4
Functionality: 4
Description: 4
Diagram: 4
Home Tab **5**
Data Structure: 5
Functionality: 5
Description: 5
Diagram: 5
Friends Tab **7**
Data Structure: 7
Functionality: 7
Description: 7
Diagram: 7
Message Tab **8**
Data Structure: 8
Functionality: 8
Description: 8
Diagram: 8

Classes

1. Str Class (I / O for Sign Up and Log In)
2. Post Class (I / O for for Post Class)
3. PNode Class (Post Node (next and pre))
4. PostLinking Class (add, update and delete Post)
5. FNode Class (Friend Node (name, next and pre))
6. FriendLinking Class (add, un-follow and View friend)
7. Node Class (str, post and friend Object)
8. Sign-Up Class (Insert User, Log-In and Search function)
9. Comment Class (I / O for Comment)
10. CNode Class (Comment Object, next and pre)
11. CommentLinking Class (Add and View Comment)
12. Message Class (I / O for Message)
13. MNode Class (Message Object, next and pre)
14. MessageLinking Class (Send, View and Delete Message)

Personal Tab

Data Structure:

Doubly linked list

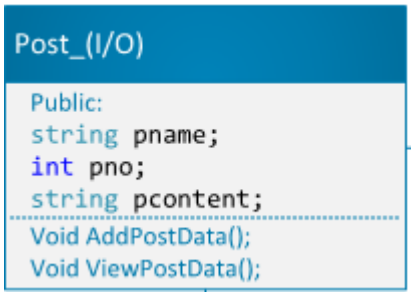
Functionality:

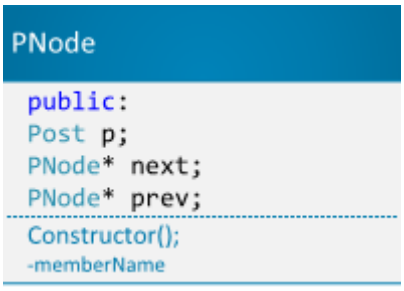
1) ADD POST
2) VIEW POST
3) REMOVE POST
4) UPDATE POST

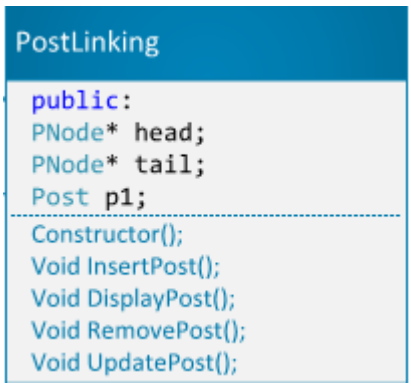
Description:

In this Tab we are using Doubly linked list (Data Structure). In add Post function the Log-In User added some posts and, in the View Tab, user can view his post. In Remove post Function user can delete and update his post. This class is linking with Node and post (I / O) class.

Diagram:







Home Tab

Data Structure:

Doubly linked list

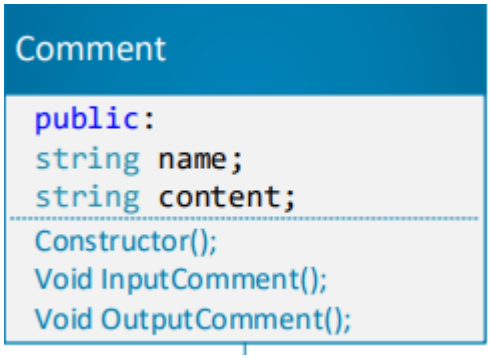
Functionality:

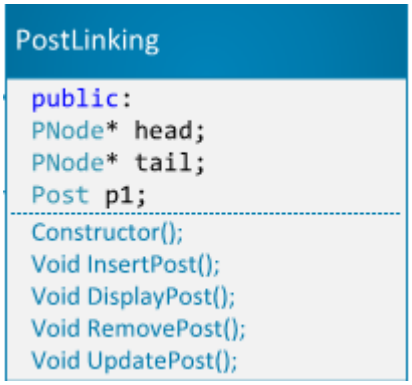
1) ADD POST
2) VIEW POST
3) REMOVE POST
4) UPDATE POST
5) ADD COMMENT
6) VIEW COMMENT

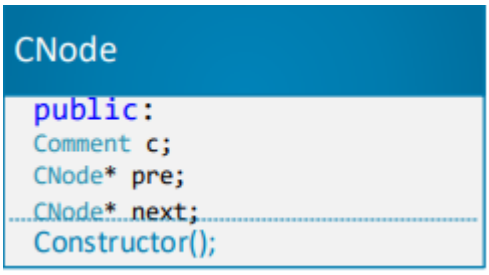
Description:

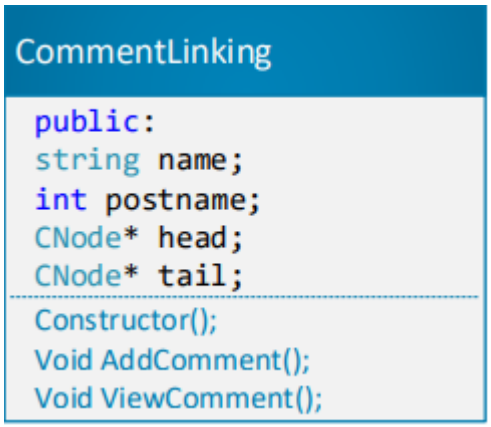
In this Tab we are using Doubly linked list (Data Structure). In add Post function the Log-In User added some posts and, in the View Tab, user can view his post and his friend post. In Remove post Function user can delete and update his post. In this function we add some comment on his post and view comments on his post. This class is linking with Node and post (I / O) class.

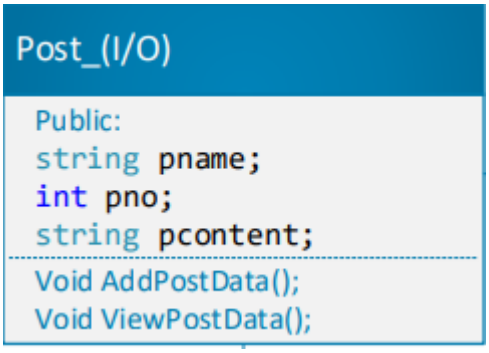
Diagram:

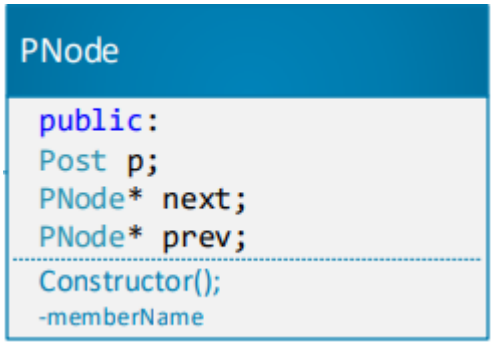


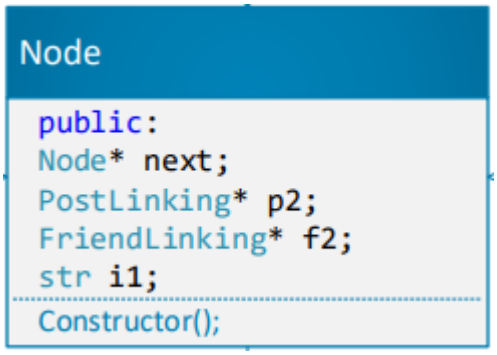



CNode
public:
Comment c;
CNode* pre;
CNode* next;
Constructor();


CommentLinking
public:
string name;
int postname;
CNode* head;
CNode* tail;
Constructor();
Void AddComment();
Void ViewComment();


Post_(I/O)
Public:
string pname;
int pno;
string pcontent;
Void AddPostData();
Void ViewPostData();


PNode
public:
Post p;
PNode* next;
PNode* prev;
Constructor();
-memberName


Node
public:
Node* next;
PostLinking* p2;
FriendLinking* f2;
str i1;
Constructor();

Friends Tab

Data Structure:

Doubly linked list

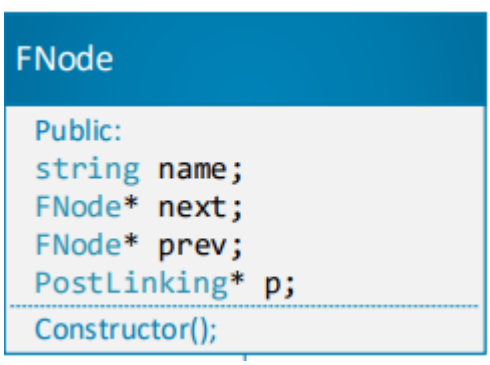
Functionality:

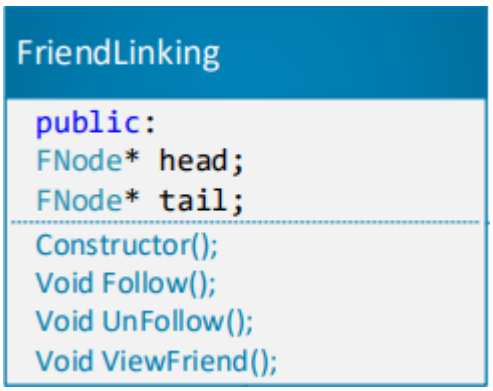
1) ADD FRIEND
2) VIEW FRIENDLIST

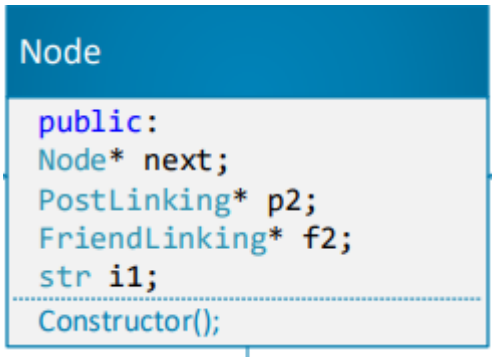
Description:

In this Tab we are using Doubly linked list (Data Structure). In add Friend function the Log-In User added some friend that are already sign-Up and in the View Friend List user can view his friend in the List.

Diagram:







Message Tab

Data Structure:

Doubly linked list

Functionality:

1) SELECT FRIEND AND SEND MESSAGE
2) VIEW MESSAGE
3) DELETE MESSAGE

Description:

In this Tab we are using Doubly linked list (Data Structure). In send Message function the Log-In User send message to added friends by selecting one of them. User can delete message and view Message through their Proper Function

Diagram: