Experiment -10

**Aim:** Create circular linked list having information about a college and perform Insertion at front perform Deletion at end.

**ALGORITM:**

**SOURCE CODE:**

#include <iostream>

#include <map>

using namespace std;

class Node

{

public:

int id;

string name;

Node \*next;

Node(int i, string n){

this->id = i;

this->name = n;

this->next = NULL;}};

void insertNode(Node \*&tail, int i, string n){

if(tail->next == NULL) {

tail ->next = tail;}

Node \*temp = new Node(i, n);

temp->next = tail->next;

tail->next = temp;

tail = temp;}

void insertAtHead(Node \*&head,Node \*&tail, int i, string n){

Node \*temp = new Node(i, n);

temp->next = tail ->next;

tail->next = temp;

head = temp;}

void print(Node \*tail){

Node \*temp = tail->next;

do{

cout << temp->id<< " \t";

cout <<"\t"<< temp->name<<endl;

temp = temp->next;

} while (temp != tail->next);}

void deleteAtEnd(Node \*&tail,Node \*&head){

Node\* curr = tail -> next;

Node \*temp = tail;

while(curr ->next != temp) {

curr = curr -> next;}

curr->next = head;

temp->next = NULL;

delete temp;

tail = curr;};

int main(){

Node \*node1 = new Node(386511, "GEU");

Node \*head = node1;

Node \*tail = node1;

int a;string b;

insertNode(tail, 174697,"MAIT");

insertNode(tail, 124812,"UPES");

insertNode(tail, 119057,"VIT");

cout << "\nElements Already Present:" << endl;

cout <<"ID: \t Name: ";

cout << endl;

print(tail);

cout << "\n\nEnter the id and name of the college: ";

cin >> a >> b;

cout << endl<< endl;

cout << " After inserting the information : " << endl;

cout <<"ID: \t Name: \n";

insertAtHead(head,tail, a,b);

print(tail);

cout << "\nAfter deleting the information: "<<endl;

cout <<"ID: \t Name:\n ";

deleteAtEnd(tail,head);

print(tail);

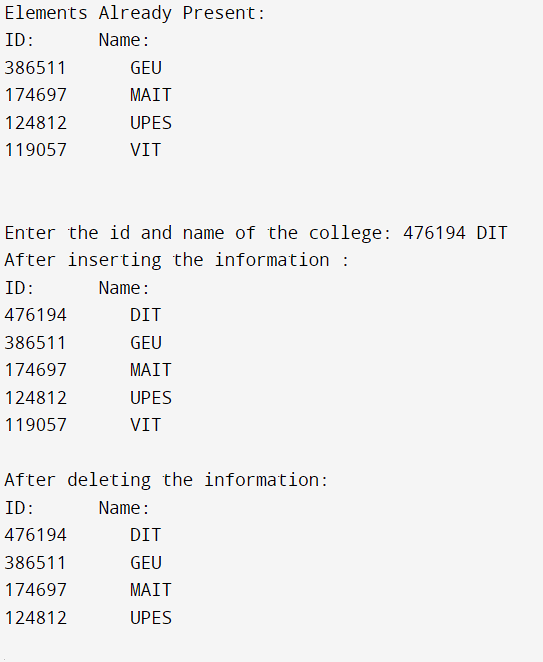
cout<<endl;

return 0;}

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**OUTPUT:**

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