**Assignment 5:**

Department of Computer Engineering has student's club named 'Pinnacle Club'. Students

of second, third and final year of department can be granted membership on request.

Similarly one may cancel the membership of club. First node is reserved for president of

club and last node is reserved for secretary of club. Write C++ program to maintain club

member‘s information using singly linked list. Store student PRN and Name. Write

functions to:

a) Add and delete the members as well as president or even secretary.

b) Compute total number of members of club

c) Display members

d) Two linked lists exists for two divisions. Concatenate two lists.

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| /\*-----------------------------------------------------  Assignment 6:  Queues are frequently used in computer programming, and a typical example is the  creation of a job queue by an operating system. If the operating system does not use  priorities, then the jobs are processed in the order they enter the system. Write C++  program for simulating job queue. Write functions to add job and delete job from queue.  -----------------------------------------------------  \*/  #include <iostream>  using namespace std;  class queue  {  int \*arr;  int front, rear ;  int MAX ;  public :  queue(int maxsize = 10);  void insert ( int item );  int deleteQue( );  void displayQueue();  };  queue :: queue( int maxsize )  {  MAX = maxsize ;  arr = new int [ MAX ];  front = -1 ;  rear = -1 ;  }  void queue :: insert ( int item )  {  if ( rear == MAX - 1 )  {  cout << "\nQueue is full" ;  return ;  }  rear++ ;  arr[rear] = item ;  if ( front == -1 )  front = 0 ;  }  int queue :: deleteQue( )  {  int data ;  if ( front == -1 || front > rear)  {  cout << "\nQueue is Empty\n" ;  // return NULL ;  }  data = arr[front] ;  arr[front] = 0;  front++ ;  return data ;  }  void queue::displayQueue()  {  if ( front == -1 || front > rear)  {  cout << "\nQueue is Empty";  return;  }  cout << "\nElements in Queue are:" ;  for (int i = front; i <= rear; i++)  cout << arr[i] << " ";  cout << endl;  }  int main()  {  int choice;  int size;  cout << "Enter the size of queue: ";  cin >> size;  queue q(size);  do {  cout << "1. Insert Elements" << endl;  cout << "2. Delete Element" << endl;  cout << "3. Display Elements" << endl;  cout << "4. Exit" << endl;  cin >> choice;  switch (choice) {  case 1:  // Inserting elements in Circular Queue  for(int i = 0; i < 5; i++){  int element;  cout << "Insert an element - ";  cin >> element;  q.insert(element);  }  break;  case 2:  q.deleteQue();  break;  case 3:  q.displayQueue();  break;  case 4:  break;  default:  cout << "Wrong input"<< endl;  break;  }  }while(choice != 4);  } |