The School Electrical Engineering and Information Technology
Computer Science Department

CS223
Linked List Part 2

Lab Work

Consider the following C++ code that we worked for the last lab assignment:

```
#include <iostream>
using namespace std;
struct Node
{
  int data;
   Node *next; // Pointer to next node
};

struct Node *head=NULL; //Declare Head Pointer
struct Node *tail=NULL; //Declare Tail pointer

// Insertion
void insertbeginning(int n){
   struct Node *newNode=new Node;
   newNode->data=n;
   newNode->next=head;
   head=newNode;
}
void insertatLast(int n)
{
   struct Node *newNode=new Node;
   struct Node *cur=new Node;

   newNode->data=n;
 newNode->next = NULL;

 if (head== NULL)
   {
      head = newNode;
      return;
   }
   cur=head;
```

```
   while (cur->next != NULL)
      cur =cur->next;

   cur->next = newNode;
   return;
}

void delete_position(int pos)
 {
   Node *cur=new Node;
   Node *pre=new Node;
   cur=head;
   for(int i=1;i<pos;i++)
   {
    pre=cur;
    cur=cur->next;
   }
   pre->next=cur->next;
   delete cur;}

//Traverse (print nodes data)
void traverse(){
   if(head==NULL){
      cout<<"Empty List!"<<endl;
      return;
   }
struct Node *temp=head;
   while(temp!=NULL){
      cout<<temp->data<<" ";
      temp=temp->next;
}   }

int main()
{
   insertbeginning (4);
   insertbeginning (2);
   insertbeginning (6);
   insertbeginning (10);
       traverse();
   return 0;
}
```

Lab Exercises:

1. Compile and run the previous code.
2. Add a function called **CountEven, which will count the even numbers in the list.**
3. After you finish please submit the final code to ELearning.