TC1018: Estructura de Datos C++ ACT04 – Operaciones de LinkedList

Por: Jaime Hisao Yesaki Hinojosa A01720044

Ing. Luis Humberto González G, Ing. Bárbara Gabriela Garza V.

*//Gets the data of the given node position, and returns it.*

template <class T>

T LinkedList<T>::get(int pos){

*if*(!isEmpty()){

node<T> \*curr = head;

*for*(int i = 1; i < pos; i++){

curr = curr->getNext();

}

*return* curr->getData();

}

}

*//Sets the value of the given node position with the given data, returns the data of the replaced node.*

template <class T>

T LinkedList<T>::set(T data, int pos){

*if*(!isEmpty()){

node<T> \*curr = head;

*for*(int i = 1; i < pos; i++){

curr = curr->getNext();

}

T retInfo = curr->getData();

curr->setData(data);

*return* retInfo;

}

}

*//Exchanges the data in two linkedList positions, then, returns true if possible and false if otherwise*

template <class T>

bool LinkedList<T>::change(int posA, int posB){

*if*(posA>size && posB>size){

*return* false;

}

*if*(!isEmpty()){

node<T> \*currA = head;

node<T> \*currB = head;

*for*(int i = 1; i < posA; i++){

currA = currA->getNext();

}

*for*(int i = 1; i < posB; i++){

currB = currB->getNext();

}

T tmpData = currA->getData();

currA->setData(currB->getData());

currB->setData(tmpData);

}

*return* true;

}