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#include "estrutura.h"
#include<stdio.h>
#include<string.h>
#include<stdlib.h>

int ordAlf(char *nova, char *existe){
    int i;

    if(strcmp(nova,existe)==0) return -1;

    for(i=0;i<(strlen(nova));i++){
        if(toupper(nova[i])>toupper(existe[i])) return 0;
        if(toupper(nova[i])<toupper(existe[i])) return 1;
    }

    return 1;
}

List guardaDoc(Docs doc, List lista){

    List newDocSave = (List) malloc(sizeof(struct listDocs));

    //inserir cenas
    newDocSave->doc=doc;

    if(lista==NULL) {
        newDocSave->next=NULL;
        return newDocSave;
    }

    List ant = lista, aux = lista;

    int res=ordAlf(doc->titulo,lista->doc->titulo);
    if(res==-1) return lista;
    if(res){
        newDocSave->next=lista;
        return newDocSave;
    }

    while(aux!=NULL){
        res=ordAlf(doc->titulo,aux->doc->titulo); //função de ordenar
        if(res==-1) return lista;
        if(res){
            ant->next=newDocSave;
            newDocSave->next=aux;
            return lista;
        }
        ant=aux;
        aux=aux->next;
    }

    ant->next=newDocSave;
    newDocSave->next=NULL;

    return lista;
}

//inicializar o documento

Docs initDocument(){

    Docs document = (Docs)malloc(sizeof(struct Document));
    document->nInter=0;
    document->linkInter=NULL;

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    document->nExt=0;
    document->linkExt=NULL;
    document->nSec=0;
    document->linkSec=NULL;

    return document;
}

Docs inserLinkInter(char* link, Docs doc){
    Links nLink = (Links)malloc(sizeof(struct links));

    //inserir cenas
    char *link1 = (char *)malloc(sizeof(char) * [strlen(link)+1]);
    strcpy(link1, link);
    nLink->nomeLinks=link1;

    if(doc->linkInter==NULL) {
        doc->linkInter=nLink;
        nLink->next=NULL;
        doc->nInter++;
        return doc;
    }

    Links ant = doc->linkInter, aux = doc->linkInter;

    int res=ordAlf(link, aux->nomeLinks);
    if(res==-1) return doc;
    if(res){
        doc->linkInter = nLink;
        nLink->next=aux;
        doc->nInter++;
        return doc;
    }

    while(aux!=NULL){
        res=ordAlf(link, aux->nomeLinks); //função de ordenar
        if(res==-1) return doc;
        if(res){
            ant->next=nLink;
            nLink->next=aux;
            doc->nInter++;
            return doc;
        }
        ant=aux;
        aux=aux->next;
    }

    ant->next=nLink;
    nLink->next=NULL;
    doc->nInter++;

    return doc;
}

Docs inserLinkExt(char* link, Docs doc){
    Links nLink = (Links)malloc(sizeof(struct links));

    //inserir cenas
    char *link1 = (char *)malloc(sizeof(char) * [strlen(link)+1]);
    strcpy(link1, link);
    nLink->nomeLinks=link1;

    if(doc->linkExt==NULL) {

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        doc->linkExt=nLink;
        nLink->next=NULL;
        doc->nExt++;
        return doc;
    }

    Links ant = doc->linkExt, aux = doc->linkExt;

    int res=ordAlf(link,aux->nomeLinks);
    if(res==-1) return doc;
    if(res){
        doc->linkExt = nLink;
        nLink->next=aux;
        doc->nExt++;
        return doc;
    }

    while(aux!=NULL){
        res=ordAlf(link,aux->nomeLinks); //função de ordenar
        if(res==-1) return doc;
        if(res){
            ant->next=nLink;
            nLink->next=aux;
            doc->nExt++;
            return doc;
        }
        ant=aux;
        aux=aux->next;
    }

    ant->next=nLink;
    nLink->next=NULL;
    doc->nExt++;

    return doc;
}

Docs inserLinkSec(char* link, Docs doc){
    Links nLink = (Links)malloc(sizeof(struct links));

    //inserir cenas
    char *link1 = (char *)malloc(sizeof(char *[strlen(link)+1]));
    strcpy(link1,link);
    nLink->nomeLinks=link1;

    if(doc->linkSec==NULL) {
        doc->linkSec=nLink;
        nLink->next=NULL;
        doc->nSec++;
        return doc;
    }

    Links ant = doc->linkSec, aux = doc->linkSec;

    int res=ordAlf(link,aux->nomeLinks);
    if(res==-1) return doc;
    if(res){
        doc->linkSec = nLink;
        nLink->next=aux;
        doc->nSec++;
        return doc;
    }

    while(aux!=NULL){
        res=ordAlf(link,aux->nomeLinks); //função de ordenar

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        if(res==-1) return doc;
        if(res){
            ant->next=nLink;
            nLink->next=aux;
            doc->nSec++;
            return doc;
        }
        ant=aux;
        aux=aux->next;
    }

    ant->next=nLink;
    nLink->next=NULL;
    doc->nSec++;

    return doc;
}

Docs inserTitulo(char* titulo, Docs doc){
    char *titulo1 = (char *)malloc(sizeof(char) * [strlen(titulo)+1]);
    strcpy(titulo1,titulo);
    doc->titulo=titulo1;

    return doc;
}

Docs inserAutorLastRec(char* autor, Docs doc){
    char *autor1 = (char *)malloc(sizeof(char) * [strlen(autor)+1]);
    strcpy(autor1,autor);
    doc->autorLastRev=autor1;

    return doc;
}

Docs inserDateLastRec(char* date, Docs doc){
    char *date1 = (char *)malloc(sizeof(char) * [strlen(date)+1]);
    strcpy(date1,date);
    doc->dateLastRev=date1;

    return doc;
}

/*
int main(){

    Docs doc = NULL;
    doc = initDocument();

    //doc = inserTitulo("Miguel", doc);

    doc = inserLinkExt("b", doc);
    doc = inserLinkExt("a", doc);
    doc = inserLinkExt("bc", doc);
    doc = inserLinkExt("c", doc);

    while(doc->linkExt!=NULL){
        printf("%s\n", doc->linkExt->nomeLinks);
        doc->linkExt=doc->linkExt->next;
    }

    return 1;
}*/

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