#include <stdio.h>

#include <stdlib.h>

struct USER{

char \*fname;

char \*lname;

char \*vehno;

char\* PANno;

struct USER\*next;

};

void insertnodetoend(struct USER \*\*);

void insertemptynode(struct USER \*\*,struct USER \*\*);

void display(struct USER\*\*);

void del(struct USER\*\*);

int main( ){

struct USER \*head=NULL,\*tail=NULL;

insertemptynode(&head,&tail);

display(&head);

insertnodetoend(&tail);

del(&head);

return 0;

}

void insertnodetoend(struct USER \*\*tail){

int n1,n2;

printf("\n Enter the length of first name : ");

scanf("%d",&n1);

printf("\n Enter the length of last name : ");

scanf("%d",&n2);

char \* tname=(char\*)malloc(sizeof(char)\*n1);

scanf("%s",tname);

char \* t1name=(char\*)malloc(sizeof(char)\*n2);

scanf("%s",t1name);

struct USER \*temp=(struct USER\*)malloc(sizeof(struct USER));

temp->fname=tname;

temp->lname=t1name;

printf("\n ENTER YOUR VEHICLE NO :");

char \*tvehno =(char\*)malloc(sizeof(char)\*10);

scanf("%s",tvehno);

temp->vehno=tvehno;

printf("\n ENTER YOUR PAN NO :");

char \*pan =(char\*)malloc(sizeof(char)\*10);

scanf("%s",pan);

temp->PANno=pan;

(\*tail)->next=temp;

temp->next=NULL;

(\*tail)=(\*tail)->next;

}

void insertemptynode(struct USER \*\*head,struct USER \*\*tail){

struct USER \*front=\*head;

struct USER \*last=\*tail;

int n1,n2;

printf("\n Enter the length of first name : ");

scanf("%d",&n1);

printf("\n Enter the length of last name : ");

scanf("%d",&n2);

char \* tname=(char\*)malloc(sizeof(char)\*n1);

scanf("%s",tname);

char \* t1name=(char\*)malloc(sizeof(char)\*n2);

scanf("%s",t1name);

struct USER \*temp=(struct USER\*)malloc(sizeof(struct USER));

temp->fname=tname;

temp->lname=t1name;

printf("\n ENTER YOUR VEHICLE NO :");

char \*tvehno =(char\*)malloc(sizeof(char)\*10);

scanf("%s",tvehno);

temp->vehno=tvehno;

printf("\n ENTER YOUR PAN NO :");

char \*pan =(char\*)malloc(sizeof(char)\*10);

scanf("%s",pan);

temp->PANno=pan;

if(front==NULL){

temp->next=NULL;

front=temp;

last=temp;

\*head=front;

\*tail=last

}

else{

last->next=temp;

temp->next=NULL;

last=temp;

\*head=front;

\*tail=last;

}

}

void display(struct USER\*\*head){

printf("\nHead->");

struct USER \*dtest=\*head;

while(dtest!=NULL){

printf("%s",dtest->fname);

printf("%s",dtest->lname);

printf("\n%s",dtest->vehno);

printf("\n%s",dtest->PANno);

dtest=dtest->next;

}

}

void del(struct USER\*\*head){

char del[10];

printf("\n Enter PAN number to be deleted ");

scanf("%s",del);

struct USER\* del=\*head;

struct USER\*prev=del: while(strcmp(del->PANno,del)!=0

&&del!=NULL){

prev=del;

del= del->next;

}

if(del==NULL){

printf("Not found");

}

else{

prev->next=del->next;

free(del);

}

}