//Singly linear linked list insertion

//20UET009

#include<stdio.h>

#include<stdlib.h>

int main()

{

int c,ch,pos,count,value;

struct node

{

int data;

struct node \*next;

};

struct node \*head,\*newnode,\*temp;

temp=head=NULL;

while(1)

{

printf("do you have a node enter 1 \n");

scanf("%d",&c);

if(c==0)

{

break;

}

else

{

{

newnode=(struct node\*) malloc(sizeof(struct node));

printf("enter node data\n");

scanf("%d",&newnode->data);

newnode->next=NULL;

printf("insertion operation\n");

printf("\nbegining:1 last:2 pos:3 aftervalue:4 display:5\n");

scanf("%d",&ch);

switch(ch)

{

case 1:printf("insertion at begining\n");

newnode->next=head;

head=newnode;

break;

case 2:printf("\ninsertion at last\n");

temp=head;

while(temp->next!=NULL)

{

temp=temp->next;

}

temp->next=newnode;

break;

case 3:printf("\ninsertion after position\n");

x:printf("enter position\n");

scanf("%d",&pos);

count=1;

temp=head;

while(count!=pos)

{

if(temp==NULL)

{

printf("\nposition is not in scope of linked list\n");

goto x;

}

else

{

count ++;

temp=temp->next;

}

}

newnode->next=temp->next;

temp->next=newnode;

break;

case 4:printf("\ninsertion after value of node\n");

y:printf("enter value\n");

scanf("%d",&value);

temp=head;

while(temp->data!=value)

{

if(temp==NULL)

{

printf("\nvalue is not in scope of linked list\n");

goto y;

}

else

{

temp=temp->next;

}

}

newnode->next=temp->next;

temp->next=newnode;

break;

case 5:printf("\ndisplay\n");

temp=head;

while(temp!=NULL)

{

printf("%d ",temp->data);

temp=temp->next;

}

break;

}

}

}

}

return 0;

}

