**Program:**

**/\*Creation of a single linked list\*/**

#include<stdio.h>

#include<stdlib.h>

void creation();

void traversal();

struct node

{

int data;

struct node \*link;

}\*ptr,\*header,\*new1;

void main()

{

int ch;

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

header->data=NULL;

header->link =NULL;

while(1)

{

printf("\n Enter the choice of operation 1.creation 2.traversal: ");

scanf("%d",&ch);

switch(ch)

{

case 1: creation();

break;

case 2: traversal();

break;

default: exit(0);

}

}

}

void creation()

{

int item,x,key,pos;

printf("enter the data value to insert");

scanf("%d",&x);

new1=(struct node \*)malloc(sizeof(struct node));

if(header->link==NULL)

{

header->link=new1;

new1->link=NULL;

new1->data=x;

}

else

{

ptr=header;

while(ptr->link!=NULL)

{

ptr=ptr->link;

}

ptr->link=new1;

new1->link=NULL;

new1->data=x;

}

}

void traversal()

{

printf("\nelements in the list are");

ptr=header;

while(ptr->link!=NULL)

{

ptr=ptr->link;

printf("\t%d",ptr->data);

}

}

Output:

enter the choice of operation 1.Creation 2.traversal: 1

enter the data value to insert 10

enter the choice of operation 1.Creation 2.traversal: 2

elements in the list are 10

enter the choice of operation 1.Creation 2.traversal: 1

enter the data value to insert 20

enter the choice of operation 1.Creation 2.traversal: 1

enter the data value to insert 30

enter the choice of operation 1.Creation 2.traversal: 2

elements in the list are 10 20 30

enter the choice of operation 1.Creation 2.traversal: 1

enter the data value to insert 40

enter the choice of operation 1.Creation 2.traversal: 2

elements in the list are 10 20 30 40

enter the choice of operation 1.Creation 2.traversal: 0