**Creating 3nodes**

#include<stdio.h>

#include<stdlib.h>

**int** **main**()

{

//node structure

**struct** node

{

**int** data;

**struct** node \*next;

};

//declaring nodes

**struct** node \*head,\*middle,\*last;

//allocating memory for each node

head = malloc(**sizeof**(**struct** node));

middle = malloc(**sizeof**(**struct** node));

last = malloc(**sizeof**(**struct** node));

//assigning values to each node

head->data = **10**;

middle->data = **20**;

last->data = **30**;

//connecting each nodes. head->middle->last

head->next = middle;

middle->next = last;

last->next = NULL;

//temp is a reference for head pointer.

**struct** node \*temp = head;

//till the node becomes null, printing each nodes data

**while**(temp != NULL)

{

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

temp = temp->next;

}

printf("NULL");

**return** **0**;

}

Output

102030

#include<stdio.h>

#include<stdlib.h>

int main()

{

//node structure

struct node

{

int data;

struct node \*next;

};

//declaring nodes

struct node \*head,\*middle,\*last;

//allocating memory for each node

head = malloc(sizeof(struct node));

middle = malloc(sizeof(struct node));

last = malloc(sizeof(struct node));

//assigning values to each node

// head->data = 10;

// middle->data = 20;

// last->data = 30;

//connecting each nodes. head->middle->last

printf("enter data of node1:");

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

printf("enter data of node2:");

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

printf("enter data of node3:");

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

head->next=middle;

middle->next=last;

last->next=NULL;

//temp is a reference for head pointer.

struct node \*temp = head;

//till the node becomes null, printing each nodes data

while(temp != NULL)

{

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

temp = temp->next;

}

printf("NULL");

return 0;

}

Output

enter data of node1:7

enter data of node2:3

enter data of node3:2

732NULL

**Creating n Nodes**

#include <stdio.h>

#include <stdlib.h>

struct node

{

int num; //Data of the node

struct node \*nextptr; //Address of the next node

}\*stnode;

void createNodeList(int n); // function to create the list

void displayList(); // function to display the list

int main()

{

int n;

printf(" Input the number of nodes : ");

scanf("%d", &n);

createNodeList(n);

printf("\n Data entered in the list : \n");

displayList();

return 0;

}

void createNodeList(int n)

{

struct node \*fnNode, \*tmp;

int num, i;

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

if(stnode == NULL) //check whether the fnnode is NULL and if so no memory allocation

{

printf(" Memory can not be allocated.");

}

else

{

// reads data for the node through keyboard

printf(" Input data for node 1 : ");

scanf("%d", &num);

stnode->num = num;

stnode->nextptr = NULL; // links the address field to NULL

tmp = stnode;

// Creating n nodes and adding to linked list

for(i=2; i<=n; i++)

{

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

if(fnNode == NULL)

{

printf(" Memory can not be allocated.");

break;

}

else

{

printf(" Input data for node %d : ", i);

scanf(" %d", &num);

fnNode->num = num; // links the num field of fnNode with num

fnNode->nextptr = NULL; // links the address field of fnNode with NULL

tmp->nextptr = fnNode; // links previous node i.e. tmp to the fnNode

tmp = tmp->nextptr;

}

}

}

}

void displayList()

{

struct node \*tmp;

if(stnode == NULL)

{

printf(" List is empty.");

}

else

{

tmp = stnode;

while(tmp != NULL)

{

printf(" Data = %d\n", tmp->num); // prints the data of current node

tmp = tmp->nextptr; // advances the position of current node

}

}

}

Output

Input the number of nodes : 5

Input data for node 1 : 3

Input data for node 2 : 8

Input data for node 3 : 22

Input data for node 4 : 55

Input data for node 5 : 44

Data entered in the list :

Data = 3

Data = 8

Data = 22

Data = 55

Data = 44