**INSERTION IN BINARY SEARCH TREE**

#include<stdio.h>

#include<stdlib.h>

struct btree{

int data;

struct btree\* right;

struct btree\* left;

};

struct btree\* insert(int x) {

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

newnode->data = x;

newnode->left = NULL;

newnode->right =NULL;

return newnode;

}

struct btree\* recursiveInsertion(struct btree\* root, int x){

if(root==NULL) {

return insert(x);

}

else {

if(root->data<x) {

root->right = recursiveInsertion(root->right,x);

}

else {

root->left=recursiveInsertion(root->left,x);

}

}

return root;

}

void display(struct btree\* root) {

if (root == NULL) {

return;

}

display(root->left);

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

display(root->right);

}

int main() {

struct btree\* root = NULL;

root = recursiveInsertion(root,50);

root = recursiveInsertion(root,30);

root = recursiveInsertion(root,20);

root = recursiveInsertion(root,40);

root = recursiveInsertion(root,70);

root = recursiveInsertion(root,60);

root = recursiveInsertion(root,80);

display(root);

return 0;

}