#include<stdio.h>

#include<cstdlib>

#define nullptr NULL

struct btnode

{

int data;

btnode \*l, \*r;

btnode(int x)

{

data = x;

l = nullptr;

r = nullptr;

}

};

btnode\* insert(btnode\* r, int a)

{

if (r == nullptr)

{

return new btnode(a);

}

if (a < r->data)

{

r->l = insert(r->l, a);

}

else if (a > r->data)

{

r->r = insert(r->r, a);

}

return r;

}

btnode\* small(btnode\* r, int& b)

{

if (r == nullptr)

{

return nullptr;

}

btnode\* l = small(r->l, b);

if (l != nullptr)

{

return l;

}

b--;

if (b == 0)

{

return r;

}

return small(r->r, b);

}

int kelement(btnode\* r, int b)

{

int count = 0;

btnode\* res = small(r, b);

return res->data;

}

int main()

{

btnode\* r = NULL;

int a[] = { 8,7,10,2,9,13 };

int sum=0;

for (int i=0;i<6;i++)

r = insert(r, a[i]);

int k = 1;

printf("First, third and fifth smallest element-");

printf("%d,",kelement(r, k)) ;

sum=sum+kelement(r, k);

k = 3;

printf("%d,",kelement(r, k)) ;

sum=sum+kelement(r, k);

k = 5;

printf("%d\n",kelement(r, k)) ;

sum=sum+kelement(r, k);

printf("Sum of these elements (Output) :%d\n",sum);

return 0;

}

