#include <stdio.h>

int ternarySearch(int l, int r, int key, int ar[])

{

while (r >= l) {

int mid1 = l + (r - l) / 3;

int mid2 = r - (r - l) / 3;

if (ar[mid1] == key) {

return mid1;

}

if (ar[mid2] == key) {

return mid2;

}

if (key < ar[mid1]) {

r = mid1 - 1;

}

else if (key > ar[mid2]) {

l = mid2 + 1;

}

else {

l = mid1 + 1;

r = mid2 - 1;

}

}

return -1;

}

int main()

{

int l, r, p, key;

int ar[] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 };

l = 0;

r = 9;

key = 5;

p = ternarySearch(l, r, key, ar);

printf("Index of %d is %d\n", key, p);

key = 50;

p = ternarySearch(l, r, key, ar);

printf("Index of %d is %d", key, p);

{

while (r >= l) {

int mid1 = l + (r - l) / 3;

int mid2 = r - (r - l) / 3;

if (ar[mid1] == key) {

return mid1;

}

if (ar[mid2] == key) {

return mid2;

}

if (key < ar[mid1]) {

r = mid1 - 1;

}

else if (key > ar[mid2]) {

l = mid2 + 1;

}

else {

l = mid1 + 1;

r = mid2 - 1;

}

}

return -1;

}

int main()

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