#include <stdio.h>

#include <stdlib.h>

#include <math.h>

#include <time.h>

#define SIZE 10

struct Table;

struct Table

{

int key;

int value;

} p[SIZE];

int main()

{

srand(time(NULL));

makeTable();

HashFunction();

printf("Table:\n");

PrintTable();

TableSearchMin();

return 0;

}

int makeTable()

{

srand(time(NULL));

int n = sizeof(p) / sizeof(p[0]);

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

{

int valuer = rand() % 100;

p[i].value = valuer;

}

}

int HashFunction()

{

int n = sizeof(p) / sizeof(p[0]);

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

{

int tmp = pow(p[i].value, 3);

if (tmp > 100)

tmp /= 1000;

else

tmp /= 10;

p[i].key = tmp % SIZE;

}

}

void PrintTable()

{

int n = sizeof(p) / sizeof(p[0]);

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

printf("value:%d \t key:%d \n", p[i].value, p[i].key);

}

int TableSearchMin()

{

int i = 0;

int n = sizeof(p) / sizeof(p[0]);

int min = p[0].key;

int minI = 0;

for (i = 0; i < n ; i++)

{

if (min > p[i].key){

min = p[i].key;

minI = i;

}

}

printf("\n\n\nЗапись с минимальным ключом...\nvalue:%d \t key:%d \n", p[minI].value, p[minI].key);

}