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1  /*#####*/
2  /*HW02_HASAN_MEN_131044009_part2.c */
3  /* */
4  /*Written by Hasan MEN on February 27, 2015 */
5  /* */
6  /*Description: */
7  /* */
8  /* This program takes a random number and give user 2 change to find */
9  /* this number and if user cannot find each steps, it will give */
10 /* a little advise */
11 /*INPUT: */
12 /* */
13 /* -guess : user guess from keybord */
14 /*OUTPUT: */
15 /* */
16 /* approaches infos */
17 /* positive and negative infos */
18 /*#####*/
19 #include <stdio.h>
20 #include <stdlib.h> /* rand() and srand() functions */
21
22 /*function prototypes*/
23 int RNG();
24 int CalculateTheDifference(int num1,int num2);
25 void WarnThePlayer(int number,int guess);
26
27 int main(){
28     /*START_OF_MAIN*/
29     int number;
30     int guess;
31     /* END_OF_VARIABLES*/
32
33     srand(time(NULL)); /* Reset random number for each use */
34
35     number = RNG(); /* assign a random number to variable number */
36
37     /* take first guess */
38     printf("Enter your first guess = ");
39     scanf("%d",&guess);
40
41     /* if guess is true ,write successful and finish the program*/
42     if(number==guess)
43         printf("Congratulations...You find number\n");
44     else {
45         WarnThePlayer(number,guess); /* if not true warn the player*/
46         printf("Enter your second guess = ");
47         scanf("%d",&guess); /* take second guess*/
48         if(number==guess)
49             printf("Congratulations...You find number\n");
50         else WarnThePlayer(number,guess);
51         /*again not true, warn once more*/
52         /*enf of change , the player couldn't find the randon number */
53     }
54
55     return 0;
56     /*END_OF_MAIN*/
57 }
58
59 /*#####*/
60 /* This function create a random number with using rand() */
61 /* function and return to number variable */
62 /*#####*/
63 int RNG(){
64     return (1+rand()%10); /* 1<=x<=10 */
65 }
66
67
68 /*#####*/
69 /* Calculate difference between numbers to help user if can not */
70 /* find first change */
71 /*-- find big and small number after that remove them */
72 /*#####*/
73 int CalculateTheDifference(int num1,int num2){
74

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75     int temp;    /* use temp vary. to change number order */
76
77     if(num1<num2){
78         temp=num1;
79         num1=num2;
80         num2=temp;
81     }
82
83     return num1-num2;    /* big number - small number */
84 }
85
86
87 /*#####*/
88 /* This function warn the player about his guess number */
89 /* takes number and guess parameter */
90 /* call CalculateTheDifference function and check some inf. */
91 /* if thats true writes on screen or write warnings */
92 /*#####*/
93 void WarnThePlayer(int number,int guess){
94
95     /* show the user which number is bigger */
96     if(number>guess)
97         printf("Your Number > Guess\n");
98     else if (number<guess)
99         printf("Your Number < Guess\n");
100
101     /* find difference and show little advice */
102     if (CalculateTheDifference(number,guess)>=5)
103         printf("You are too far from the number\n");
104     else if (CalculateTheDifference(number,guess)>=3)
105         printf("You are far from the number\n");
106     else if (CalculateTheDifference(number,guess)<=2)
107         printf("You are close to the number\n");
108 }
109
110 /*#####*/
111 /*          END_OF_HW02_HASAN_MEN_131044009_part1.c          */
112 /*#####*/

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