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Report: HW3

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Description:

在這次的作業中學到了使用random來生成數值，並且能夠利用兩個陣列來進行比較，使作業能夠得到正確的結果，並且能夠有效的使用if條件是來使用break跳出無限循環的迴圈中，來讓使用者能夠一直重複輸入得到正確答案為止，並且對取餘數更加熟悉的使用

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Code:

#include<stdio.h>

#include<stdlib.h>

#include<time.h>

int main(int argc,char \*argv[])

{

srand(time(NULL));//use the random by time

int N=atoi(argv[1]);//input the number of integers

int P=atoi(argv[2]);//input the number of positions

int H=0;//initialize the number of H

int X=0;//initialize the number of X

int answer[50]={};//build array to store answer

int guess[50]={};//build array to store guess

for(int i=0;i<P;i++)//bulid the answer by random

{

answer[i]=rand()%N+1;

}

/\*printf("the answer is \n");

for(int j=0;j<P;j++)

{

printf("%d",answer[j]); //to check answer code

}

printf("\n");

\*/

while(1)//guess foever until get answer

{

printf("Guess: ");

for(int i=0;i<P;i++)//input the guess in array

{

scanf("%d",&guess[i]);

}

for(int j=0;j<P;j++)//check the H first and put it to 0

{

if(answer[j]==guess[j])

{

guess[j]=0;

H++;//count the number of H

}

}

for(int out=0;out<P;out++)//check the X

{

for(int in=0;in<P;in++)

{

if(guess[out]==answer[in])

{

X++;//count the number of X

break;//found it and to find next

}

}

}

if(H==P)//to see user get answer or not

{

printf("Correct\n");//if get answer to print correct

break;

}

else//if not get answer to tell number of H and X

{

printf("%dH%dX\n",H,X);

H=0;//initialize the H

X=0;//initialize the X

}

}

}

Compilation:

gcc hw3.c -o hw3

Execution:

./hw3 5 4

Output:

Guess: 1 1 1 1

0H0X

Guess: 2 2 2 2

1H3X

Guess: 3 3 3 3

3H1X

Guess: 2 3 3 3

2H2X

Guess: 3 2 3 3

2H2X

Guess: 3 3 2 3

Correct