**TASK-10**

Math Tutor

**EXPLANATION:**

Write a program that generate two random numbers and ask the users to write the sum of two numbers. You have to write a program that uses a do while loop to allow user to test his/her addition skills as long as he/she wants to. When the loop end the program must tell the user that how many answers were correct out of asked question.

**INPUT:**

#include <iostream>

#include <cstdlib>

#include <ctime>

#include <conio.h>

#include <stdlib.h>

#include <windows.h>

using namespace std ;

void cin\_clear ()

{

Sleep (2000) ;

system("CLS") ;

cin.clear () ;

cin.ignore ( INT\_MAX , '\n' ) ;

}

int continuationLoop ()

{

bool check = true , flag = true ;

char option ;

while ( check )

{

system("CLS") ;

cout << "Do you want to continue (y/n) : " ;

option = getch() ;

if ( option == 'y' )

{

system ("CLS") ;

return 1 ;

}

else if ( option == 'n' )

{

return 0 ;

}

}

}

int main ()

{

bool flag = true ;

while ( flag )

{

srand ( time ( 0 ) ) ;

int num\_1 , num\_2 , sum , array\_1 [30] , array\_2 [30] , i = 0 , test , marks = 0 ;

char option ;

int question ;

cout << "Please enter number of questions to be asked : " ;

while ( ! ( cin >> question ) )

{

cout << "Questions cannot be less than 1 ! " ;

cin\_clear () ;

cout << "Please enter number of questions to be asked : " ;

}

for ( int j = 1 ; j <= question ; j++ )

{

num\_1 = ( rand () % 10 ) + 1 ;

num\_2 = ( rand () % 10 ) + 1 ;

sum = num\_1 + num\_2 ;

array\_1 [ i ] = sum ;

cout << "Please enter sum of two numbers : " ;

while ( ! ( cin >> test ) )

{

cout << "Sum cannot be less than 1 ! " ;

cin\_clear () ;

cout << "Please enter sum of two numbers : " ;

}

array\_2 [ i ] = test ;

++i ;

system ( "CLS" ) ;

}

system ( "CLS" ) ;

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl ;

cout << "\* Numbers entered by user \t\t \* \t KEY \* " << endl ;

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl ;

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

{

cout << "\*\t" << array\_2 [ y ] << "\t\t\t\t \*\t " << array\_1 [ y ] << "\t\t\*" << endl ;

}

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl ;

system ( "PAUSE" ) ;

system ( "CLS" ) ;

cout << i << " Question" ;

if ( i > 1 )

cout << "s were" ;

else

cout << " was" ;

cout << " asked." << endl ;

cout << "The result is as follows :- " << endl ;

for ( int x = 0 ; x < i ; )

{

if ( array\_1 [x] == array\_2 [x] )

{

cout << "Answer no " << ++x << " is correct." << endl ;

++marks ;

}

else if ( array\_1 [x] != array\_2 [x] )

{

cout << "Answer no " << ++x << " is incorrect. " << endl ;

}

}

system ( "PAUSE" ) ;

system ( "CLS" ) ;

cout << "You got " << marks << " out of " << i << "." << endl ;

if ( marks >= ( i / 2.0 ) )

{

cout << "Good work! " ;

}

else

{

cout << "Better luck next time! " ;

}

cout << endl ;

system ("pause") ;

system ("cls") ;

flag = continuationLoop () ;

}

}

**OUTPUT:**











