//PROBLEM1.cpp

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//Files used: PROBLEM1\_FUNCTIONS.CPP

//This is a multiplication practice problem for children.

#include <ctime>

#include <iostream>

#include <iomanip>

#include <string>

using namespace std;

string randomResponce(bool answerIsCorrect);

int safeInput(string errorMessage,string prompt,int minValue,int maxValue);

char safeInput(string errorMessage,string prompt,const char validChars[]);

void sub\_rangedMode();

void sub\_normalMode();

//Stores the valid charicter input for the menu

const char validChars[] = {'N', //Normal entry mode.

'R', //Range mode.

'Q'}; //Quit

int main()

{

//Make it so the random numbers produced will be random according to the system clock.

srand((unsigned)time(0));

char menuChoice;

cout<<"\t\t \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl

<<"\t\t \* Welcome to the times table learning system \*"<<endl

<<"\t\t \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl<<endl

<<"\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* INSTRUCTIONS \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl

<<"\t\t\* 1.)Chose an option and follow the directions \*"<<endl

<<"\t\t\* 2.) Once you are done solving problems, pre- \*"<<endl

<<"\t\t\* ss ^Z(CTRL + Z) to exit the program \*"<<endl

<<"\t\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl<<endl;

//The main menu loop will be repeated untill the user quits the program or presses ^Z.

do{

cout<<"\n\n\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl

<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* MAIN MENU \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl

<<"\t\*"<<endl

<<"\t\* Please select an option:"<<endl

<<"\t\* Normal mode: N"<<endl

<<"\t\* Ranged mode: R"<<endl

<<"\t\* Quit: Q"<<endl

<<"\t\*"<<endl

<<"\t\* Enter(N,R,or Q): ";

menuChoice = safeInput("\t\*\n\t\* WARNING: INVALID CHOICE","\t\* Please enter a valid choice: ",validChars);

if(menuChoice == 'N')

{

sub\_normalMode();

}

if(menuChoice == 'R')

{

sub\_rangedMode();

}

else if(menuChoice == 'Q')

{

cout<<endl<<"Thank you for using the program."<<endl<<"Now exiting the program. ";

exit(0);

}

}while(true);

return 0;

}