**Quick Count Game**

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Purpose : To train and entertain people to count quickly with the four basic operations of elementary arithmetic with the ultimate countdown, so you will be given a time to do the count before the time runs out. This game will be challenging for those who want to be the top of your friends. At first, there will be only addition and subtraction but each time you pass it, it will be harder and will be more complicated with the presence of multiplication. Also there is a practice section for those who afraid to beating their friends.

**Classes**

* Class Play This class is used for the play section. In the int play() function will call the function in the class Play. This class is declared in the play.cpp.
* Class Practice This This class is used for the practice section. In the int practice() function will call the function in the class Practice. This class is declared in the practice.cpp.

**Functions**

* int play ()

This function is used to declared the score, random numbers, and the random operations and call the function level1(), level2(), and level3().

* void level1(int num1, int num2, int operations, int scores)

There are 1 random operations and 2 random numbers. Give the question to the player and if the answer not equal to the formula or the time runs out then game over

* void level2(int num1, int num2, int num3, int operations1, int operations2, int scores) There are 2 random operations and 2 random numbers. Give the question to the player and if the answer not equal to the formula or the time runs out then game over
* void level3(int num1, int num2, int num3, int operations1, int operations2, int scores) There are 2 random operations and 2 random numbers. Give the question to the player and if the answer not equal to the formula or the time runs out then game over
* void timer(int scores)

To start the timer and if the timer greater than 3 then display game over to the player

* void endOptionsPlay()

After the game over display, the player can choose either to back to the menu or play the game again.

* int practice()

This function is use to

* void addPractice ()

Declare two random numbers and the symbol (addition) , after that call the questionPractice function, display the score, and display the options.

* void subPractice ()

Declare two random numbers and the symbol (subtraction), after that call the questionPractice function, display the score, and display the options.

* void mulPractice ()

Declare two random numbers and the symbol (multiplication) , after that call the questionPractice function, display the score, and display the options.

* int questionPractice (int number, int answer, int n1, int n2, string symbol, int points)

Display the questions that being called by addPractice(), subPractice(), and mulPractice() functions.

* void displayPoints (int practiceScore)

Display the score and called by the addPractice(), subPractice(), and mulPractice() functions.

* int endOptionsPractice ()

Display the options either the player want to play the practice section again or back to the main menu.

**Hierarchy Chart**

Main Menu

int main()

Play

play()

Practice

int practice()

Practice Options

endOptionsPractice()

Display score

displayPoints()

Practice Question

questionPractice()

Multiplication

mulPractice()

Subtraction

subPractice()

Addition

addPractice()

timer()

Play Options

endOptionsPlay()

Play level 3

level3()

Play level 2

level2()

Play level 1

level1()

Countdown

count()