

Perfecting Math Skills

Course Project for CSCI 352

Developed by Charles Clayton and Robert Rayburn

Overview

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- Demo
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Background

- Create a tool for children to practice basic arithmetic as a game
 - Gives a boost in school
 - Teachers can move into more advanced concepts earlier
- Developed as a Smart Board Application

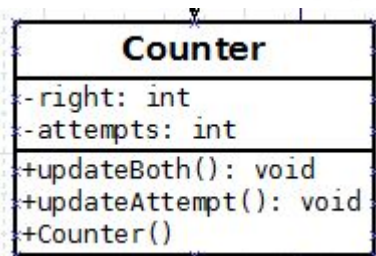
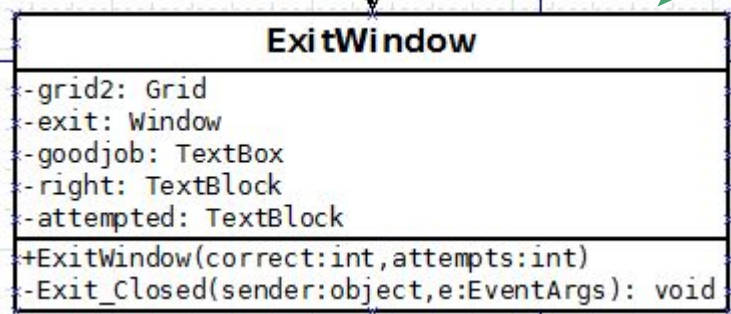
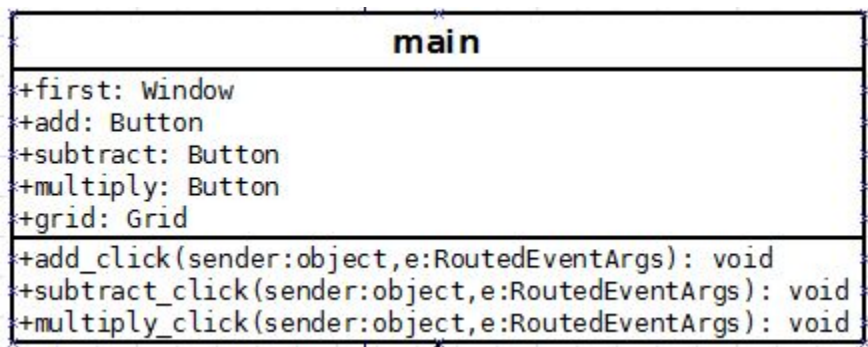
Approach

- Provide simple interface to allow user to choose between different modes
- Uses basic WPF Application Directives
 - Windows
 - Windows.System
 - Windows.Controls
- Patterns Used:
 - Facade pattern to simplify user interface
 - Factory pattern for creating exitwindows and counters

Gameplay

- Modes:
 - Addition
 - Generates problems consisting of two random integers less than 26
 - Subtraction
 - Generates problems consisting of two random integers less than 26
 - Checks that solution is nonnegative
 - Multiplication
 - Generates problems consisting of two random integers less than 13
 - Because common multiplication tables are 12x12

Class Diagram



Demo

To set up our application you can either use the executable file, or open and run the application in visual studio.

Future Work

- Create different difficulties
 - Allow users to challenge themselves at higher levels
- Adding more modes
 - Division
 - Mixed
- Creating a timed version
 - Challenge users to solve as many problems as possible

Questions

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Repo:

<https://github.com/SoftwareEngineeringProjectCharlesRobert/PerfectingMathSkills>