Refactoring Documentation for Project "Cows & Bulls"

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1. Redesigned the project structure:

   Project name cows_buls renamed to BullsAndCows.

   Project Main class renamed From BullsAndCowsTest to BullsAndCows

   Divided the project into separated files, that contains only one class, with name, that describes his purpose. The idea is to create a new classes that were a part of the code of an old big file. The new classes/interfaces are:
   Bull.cs,CommandParser.cs,Cow.cs,Engine.cs,IDraw.cs,SecretNumber.cs,UserInterface.cs, HallOfFame.cs,SecretNumber.cs

2. **Reformatted source code:**

   Mainly StyleCop standarts are applied for code format and documentation.

   Code formatting applied at 100%.

   XML documentation presented only for public Methods, properties, fileds and classes.

3. **Class Structurs**

   Bull class

   Counting Bull logic not changed.

   Variable manipulation:

   numberForGuessString → numberForGuess

   tryNumberString → tryNumber

   bulls → isBull

   Cow class

   Counting cows logic changed for good. Bug for incorrect cow counting in some special cases fixed.

   Variable manipulation:

   numberForGuessString → numberForGuess

   tryNumberString → tryNumber

   bulls → isBull

'For cycle' indexers naming changed: I → nubmerIndex

J → currNumberIndex

Implemented IDraw interface for both Cow and Bull clases → Method PrintCowsAndBulls deleted.

CommandParser class

This class 'translate' the user command for the Engine class.

It has one public method ParseCommand that returns user command to the Engine after reformatting it in readable format for the Engine.

Variables manipulations:

Presented property AllowedCommads holding the commands that Engines can understand.

Engine class

Determs the game flow.

Method ProcessTextCommand → CommandExecution

Method ProcessDigitCommand → ProcessNextMove

Presented PrintHelpingNumber, ValidateNickName

AddZeroes method deleted. Logic of the secret number(numberToGuess) changed.

Method CountCowsAndBulls deleted for being unessesry.

Variable manipulation:

count1 → numberOfCheats

count2 → numberOfMoves

numberForGuessString → numberForGuess

tryNumberString → tryNumber

HallOfFame class

Methods for printing messages on the console in are presented in HallOfFame class.

IDraw interface

Implemets method GetPrintableCount

PlayerInfo class

Not changed.

SecretNumber class

    Method GenrateNumberForGuess logic changed.

    Presented methods: GenerateHelpingNumber,GetHelpingNumber

    Variables manipulation:

        bool flag → bool isRevealed

        numberForGuessString → numberForGuess

        Presented constants:

            HidingSymbol

            SecretNumberLenght