Game Design Document -

Bulls and Cows console game

# Emotional problem the game solves

The gamer wants:

* a mental challenge
* to prove herself or himself
* to play a word puzzle
* to feel the sense of accomplishment
* a simple and fun game
* a playtime of 1-2 minutes

# Concept, rules and requirements

## Concept

* A guessing game with words
* Isograms: the words have no repeating letters
* A finite number of guesses to add a challenge

## Rules

After each guess the computer outputs:

* Bull: the no. of letters in the right place (from bullseye)
* Cow: the no. of right letters in the wrong place (… from … umm cow’s eye?? ☺ )

Win condition:

Successfully guessing the word selected by the computer within the specified number of tries

## Requirements

### Inputs

* string only, from keyboard

### Outputs

messages indicating:

* a quick introduction and rules
* the no. of bulls and cows
* the no. of tries left
* win or lose condition
* quit or try again after finished game

### Tasks

* code to validate user input (only string, lowercase, no number or special character, right, length, isogram)
* code to compare guess vs. hidden word
* code to loop the game
* code to indicate guesses left
* code to track valid guesses

### Performance limits

* N/A: a simple console application

### Assets (art, story, sound)

* ASCII art of a bull and a cow

## Possible Future Ideas (The NO list)

* settings menu
* 3D version
* 3D art
* music, select from a playlist, custom, online
* feedback on every key press
* word themes to choose from (history, electronics, aquatic life ;), etc…)
* online dictionary of words
* user defined dictionary
* modding
* user forum
* hint system
* time limit