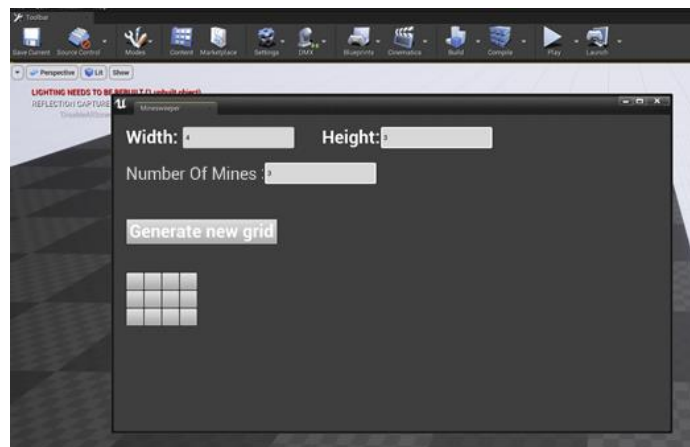# Trial Task: *Minesweeper in the Unreal Editor*

Your goal is to implement Minesweeper in the Unreal Editor. Below is a quick prototype for reference.



## Requirements

Here's a list of hard requirements:

- Add a toolbar button which opens the Minesweeper window
- Minesweeper can be played in the window that appears:
    - A new game can be started at any time, there is an input field for
        - the width and height of the new field
        - the number of bombs
    - Fields in the grid can be clicked to play the game
        - Player clicked on a bomb tile: display a message that the game is over
        - Player clicked non-bomb tile: display the number of adjacent bombs or recursively expand the neighbourhood, like in Minesweeper.
- Everything must be implemented using C++. Specifically, you may not use Editor Utility widgets.

You are encouraged to come up with your own layout for the mine sweep and change / add requirements, if appropriate.

You do not need to implement flagging bombs. You can use the default textures of all UI: it does not need to be a work of art.

## Final remarks

We suggest implementing this feature as a plugin. Unreal offers a template for extending the toolbar with a button. The Widget Reflector is very useful for finding out how the editor creates its widgets.

We put value in

- appropriate and correct use of C++ language features,
- ability to write self-expressive and easy-to-read code,
- bug-free solution,
- ability to write editor UI code in Unreal Engine

Please submit the complete Unreal project in a git repository so it can just be started.

We're looking forward to your submission!