# **Minesweeper Program**

### **Objectives**

* Develop a console-based Minesweeper game.
* Implement basic functionality, input handling, and display.
* Include unit tests and validations.

### **Requirements**

1. **Grid Setup:**
   1. Initialize a grid with random mines.
   2. Allow configurable grid size and number of mines.
      1. Grid size should be n x n
      2. The number of mines should be less than n2
2. **Game Play:**
   1. Print the grid using symbols (e.g., '#' for unrevealed, '\*' for mines, and numbers for adjacent mines).
   2. Allow players to select coordinates to reveal a cell.
      1. x, y → both x and y are between 0 until n-1
   3. Display updated grid after each move.
   4. End the game if a mine is revealed or all non-mine cells are revealed.
3. **Input Handling:**
   1. Allow input in the format: row, column.
   2. Validate input (e.g., format, boundaries).
4. **Unit Tests:**
   1. Test grid initialization (e.g., correct number of mines).
   2. Test input validation.
   3. Test game over conditions.
5. **Common Validations:**
   1. Ensure grid dimensions and mine count are valid.
   2. Validate player input and handle errors gracefully.
   3. Prevent repeated cell selection.

\*Please create a README file of how to run the program.