

Brushed Steel Consulting

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Web-based Minesweeper Requirements Document

1. General Requirements

- **Platform:** Web-based (browser accessible).
- **Responsiveness:** Responsive layout for various screen sizes and devices.
- **Accessibility:** Accessible to users with disabilities.
- **Performance:** Smooth and responsive gameplay.
- **Security:** Secure data storage and user authentication (optional).
- **Offline playability:** Option for offline play (optional).

2. Functionality Requirements

- **Game Board:**
 - Customizable board sizes (e.g., Beginner, Intermediate, Expert).
 - Variable number of mines based on board size and difficulty.
 - Visual representation of tiles (covered, flagged, revealed, exploded).
 - Number tiles displaying neighboring mines.
- **Gameplay:**
 - Left-click to uncover tiles.
 - Right-click to flag suspected mines.
 - Double-click on a flagged tile to reveal surrounding tiles (optional).
 - Uncovering a mine ends the game and reveals all mine locations.
 - Game timer tracks elapsed time.
 - Leaderboards for tracking high scores (optional).
- **User Interface:**
 - Intuitive and user-friendly interface.
 - Clear instructions and game rules.
 - Visual feedback for user actions (e.g., animations, sound effects).
 - Options menu for customizing game settings (difficulty, sound, etc.).
 - Pause and resume functionality.
 - Restart game option.

3. Flow of the Game

1. **Game Start:**
 - User selects board size and difficulty level.
 - Game board is generated with hidden tiles and mines.
2. **Gameplay:**
 - User clicks on tiles to reveal them.

- User flags suspected mines.
 - Game timer starts.
 - User continues playing until:
 - Uncovering a mine: Game ends, all mines are revealed, and game stats are displayed.
 - Flagging all mines correctly: Game ends, user wins, and game stats are displayed.
 - User chooses to restart or quit.
3. **Game End:**
- Display winning or losing message.
 - Show game stats (time elapsed, mines flagged, correct flags, etc.).
 - Offer options to restart the game or return to the main menu.

4. Additional Considerations

- **Sound effects:** Optional sound effects for actions like flagging, uncovering, and explosions.
- **Visual effects:** Optional animations for explosions and tile reveals.
- **Multiplayer:** Option for online multiplayer gameplay (optional).
- **Social features:** Integration with social media platforms for sharing scores and achievements (optional).
- **Customization:** Option for users to personalize the game interface and theme (optional).