**Minesweeper Project 2**

**User Story 1 — Sound Effects**

**As a user**I want to have sound effects to correlate to actions,

So that I have a better environment when I am playing the game.

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Get effect for button click | Abdelrahman Zeidan | .1 | .2 09/29/2025 |
| Get effect for flag place / remove | Abdelrahman Zeidan | .1 | .1 09/29/2025 |
| Get effect for cell reveal | Abdelrahman Zeidan | .1 | .1 09/29/2025 |
| Get effect for mine reveal | Abdelrahman Zeidan | .1 | .1 09/29/2025 |
| Implement effect playing on click | Abdelrahman Zeidan | 1 | 1 09/29/2025 |

**User Story — Background Music**·

**As a user**As a player, I want a background music depending on the game state and also mute the background music

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| **Get music for win screen** | Mya Hoersdig | .1 | 9/28/25  11:07pm-12:24am |
| **Get music for playing / start screen** | Mya Hoersdig | .1 | 9/28/25  11:07pm-12:24am |
| **Get music for lose screen** | Mya Hoersdig | .1 | 9/28/25  11:07pm-12:24am |
| **Implement music playing depending on game state** | Mya Hoersdig | 1 | 9/28/25  11:07pm-12:24am  1hour and 17mins |
| **Mute Button** | Mya Hoersdig | .3 | 10/5/25  6:19am-6:45am  36mins |

**User Story — Human Win and lose screens**

**As a user**I want to have a win and lose screens for humans,

So I can more easily see the outcome of the game.

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Win screen for human making last move | Abdelrahman Zeidan | .2 | .2 10/2/2025 |
| Lose screen for human making mistake | Abdelrahman Zeidan | .2 | .2 10/2/2025 |
| generic win/loose screen | Connor Williamson | 2 | 2 09/30/2025 |

**Developer Story**

**As a developer**I want to understand team 8’s code  
So that I can add upgrades to the game.

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Research team 8’s code / documentation | Abdelrahman Zeidan | .5 | .6 09/28/2025 |
| Research team 8’s code / documentation | Ryan Grimsley | .5 | .5 09/24/2025 |
| Research team 8’s code / documentation | Henry Hoopes | .5 | 5 p.m. - 5:30 p.m. 09/25/2025 |
| Research team 8s code / documentation | Connor Williamson | .5 | .5 09/29/2025 |

**User Story — AI option**·

**As a user**I want an option to play against AI,   
So that I can have a “multiplayer” experience

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Add template for ai engine | Ryan Grimsley | 1 | 1.5 09/25/2025 |
| Make AI move limited to ~1 second | Ryan Grimsley | .1 | .1 10/01/2025 |
| Add functionality for switching between AI modes | Henry Hoopes | 1 | 10:48 a.m. - 11:48ap.m., 9/29/2025 |

**User Story — Easy AI option**·

**As a user**I want an option to play against an easy AI,   
So that I can have a “multiplayer” experience

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Add button for easy ai to start screen | Henry Hoopes | .1 | 12 p.m. - 12:06 p.m, 09/29/2025 |
| Add functionality to ai engine to make easy ai’s decision | Ryan Grimsley | .5 | .6 9/25/2025 |

**User Story — Medium AI option**·

**As a user**I want an option to play against an easy AI,   
So that I can have a “multiplayer” experience

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Add button for medium ai to start screen | Henry Hoopes | .1 | 11:54 a.m. - 12 p.m, 09/29/2025 |
| Add functionality to ai engine to make medium ai’s decision | Ben Stonestreet | 1.5 | 9/30/2025, 7:00pm - 8:30 PM |

**User Story — Hard AI option**·

**As a user**I want an option to play against an easy AI,   
So that I can have a “multiplayer” experience

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Add button for hard ai to start screen | Henry Hoopes | .1 | 11:48 a.m. - 11:54 a.m, 09/29/2025 |
| Add functionality to ai engine to make hard ai’s decision | Ben Stonestreet | .5 | 9/30/2025 6:45-7:00PM |

**User Story — AI Win and Lose**·

**As a user**As a player, I want a new win screen for beating the AI (solving the game before AI)

As a player, I want a new loss screen for losing to the AI (AI solves the game before player)

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Create win AI win and loose screen image | Mya Hoersdig | .4 | 10/5/25  6:18am-8:19am |
| Implement the functionality into the code | Mya Hoersdig | 1 | 10/5/25  6:18am-8:19am  2hours 1min |
| AI win loose screen | Connor Williamson | 1 | 1 10/01/2025 |

**Developer Story — Code Separation**

**As a developer**I want a clear code module distinction,

So that I can more easily make changes and extend the code.

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Split up team 8’s code into separate modules (in different files / classes | Ryan Grimsley | .1 | .3 09/24/2025 |

**Developer Story — Documentation**

**As a developer,**I want accurate documentation in the code and over the system architecture,   
So that the project is more easily understandable to new and current developers.

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Make new system documentation for new architecture (split files, ai engine, and sounds) | Ryan Grimsley | .5 | 1 10/01/2025 |
| Move old and new documentation into folders | Ryan Grimsley | .1 | .1 10/01/2025 |
| Make new prologue comment documentation | Ryan Grimsley | .25 | .4 10/02/2025 |

**Developer Story — Testing**

**As a developer**I want a to rigorously test the final code,

So that I can be sure it is correct.

**Task Breakdown:**

| **Tasks** | **Completed By** | **Estimated Person Hours** | **Actual Person Hours / Dates** |
| --- | --- | --- | --- |
| Perform final testing | Henry Hoopes | .5 | 10:00 a.m. - 10:36 a.m., 09/24/2025 |
| Perform final testing | Mya Hoersdig | .5 | 9:17am-9:43am 10/5/25 |