**CS408: Sprint 2 Defect Log**

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| Product | Overleven |
| Date | 3/1/2019 |
| Author | Overleven team |
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| Recorder | Trevor |

Design Inspection Defects

(Defects when linking modules)

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| Defect # | Description | Severity | Solution |
| 1 | Can’t ignore bundle.js in our git repository using .gitignore file and we have to manually discard it every time we commit | 3 | Used git rm --cached [filename] command to untrack a single file that has already been initialized in our repository |
| 2 | Information text such as HP showing on every scene and it should only show in the game scene | 2 | Remove the information scene before adding or changing into a new scene |
| 3 | Was not able to access the leaderboard from the main menu screen | 2 | Added Leaderboard scene into the scene manager |
| 4 | Sounds didn’t play after merging with master | 2 | It was a merge conflict where we only took in the graphics asset loads instead of both graphics and sound assets, redid merge |
| 5 | No more than the first wave would spawn after waves were implemented | 2 | The old code (temporary) was still being used where the player won after 2 enemy kills |

Code Inspection Defects

(Errors from human or bad code)

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| Defect # | Description | Severity | Solution |
| 1 | Leaderboard entries were not sorted properly when first entered | 2 | Passed in a comparing function into the array sort method |
| 2 | Too many leaderboard entries visible | 3 | Add a const MAX\_ENTRIES and make sure only that amount or less is displayed. |
| 3 | Blocks were not able to be placed everywhere in the map to create a fully featured map | 1 | Change the way the blocks are represented in the grid system behind the scenes |
| 4 | When player respawns due to dying, collision with enemies crashes the game | 1 | Remove duplicate collision adding to the player |
| 5 | Sounds were bugged/fuzzy | 2 | Use new function, the one we were using was deprecated in their API |
| 6 | More than 1 wave of enemy would not spawn | 2 | This had previously been hard coded to not happen, we had to simply change a const variable |
| 7 | New enemy varieties wouldn’t spawn in | 2 | Change the minimum number of rounds that needed to occur before they randomly come in |
| 8 | Enemies didn’t get more difficult with each wave | 2 | Adjust numbers algorithm for each wave, there was a simple PEMDAS error |
| 9 | Back button on leaderboard went into the game instead of the main menu | 2 | Change the pathing in the scene manager, this happened because the code was reused from the main menu |
| 10 | When a new wave would spawn the player would bug out | 2 | Reworked how new waves worked, made it more seamless anyway |
| 11 | Application wasn’t able to initially read from the database for the leaderboard | 2 | Change read permissions in the database |
| 12 | The scores weren’t properly being uploaded the the database after a game | 2 | Change to a different firebase method, the old one was actually used for something else entirely. |
| 13 | Score was being calculated incorrectly at the end of a game | 2 | The algorithm weighted the speed of the game too much, often making the score 0 for the player being too slow. |

Unit Testing Defects

(Errors while testing modules)

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| Defect # | Description | Severity | Solution |
| 1 | When testing items in shop gold would go past zero or would be bought when not enough coins | 2 | Had to put an if statement to check and see if enough gold was available |
| 2 | When testing items in shop the max health would be displayed correctly but the actual max health would not be updated | 2 | The max health had to also be updated in the main game function not just in the display function |
| 3 | When testing incrementing enemy stats. After enemy speed exceeded 120 collisions would not occur properly | 3 | Create conditional to make sure that enemy speed does not exceed 120 |
| 4 | When testing retrying rounds, multiple rounds could not be played as the win screen would only appear once. | 2 | Had to rework the retry button function to properly reset game variables such as gold, hp, enemy, and player to their initial state. |
| 5 | When testing the HP and gold displaying scene, nothing triggers the update function | 2 | Added event emitter in the game scene with correct name to trigger the update function in info scene |