### User Manual

#### Loading the Project - Compilation instructions

If you don’t have Unity installed, download and install the Unity game engine. Load the project in the engine, and you should see a main window and several smaller windows surrounding it. When this is finished loading, you should be able to run the game.

#### Playing the Game

To run the game, click on the play button above the main window. This should start the step scene that will be seen on the phone screen. To take a step, click on the “Step” button. The step counter will go up, and there is a random chance of encountering an enemy. After every fifty steps, the game will award you with one coin.

These coins may be spent on items in the Shop (accessed by clicking the Shop button), which will be added to the Player’s inventory once bought. In the inventory, items may be rearranged and reorganized by clicking and dragging.

Additionally, pets are unlocked with the completion of a Zone. A pet can be viewed by clicking the Pets button from the main screen.

### Testing the Game

When we tested our game, we ran it in the Unity game engine. We were able to run the program as if it were being played, and we ran our tests through that. We made sure the stepping and encounter systems worked, and that the user was able to switch screens. We tested the program whenever new content was added.

Specific things we tested included button functionality, graphics, and usability. To test each button we clicked them several times and found only a few issues with buttons transitioning us to incorrect scenes, which was an easy enough fix. When testing graphics in the game we encounter only a few issues mostly with combining graphics of the player or enemy to the other so things were some what backward, or mirrored.

Each system of the game: equipment, inventory, pets, steps, zones and the battle system, were tested multiple times with two different cases. One case is with a blank save file and another case with a full save file. It was important to test all the features that involve saved stats to make sure initial values wouldn’t cause any errors and that the data was saved correctly.

### Features

We have successfully implemented the core game features, such as the walking system and the enemy encounters. Android compatibility was also implemented, and the game should work on Android devices.

Some features we were not able to complete, but would like to in the future, would be the ability to buy loot boxes, and location-based events. If we were to continue working on this project, we would put the finished game on the appstore and support it with updates. These updates would most likely include multiplayer modes, cosmetic options, and eventually location-based events, similar to Pokemon Go.

### Meeting Minutes

Meeting 1: Cameron, Andrew, Phillip - September 11th, 7pm - 9pm (120 min)

* Discussed Deliverable I
* Focused a lot on risks
* Added a Gantt chart document
* Added a Deliverable I outline
* Started work on Deliverable I
* Cameron and Andrew worked on Deliverable I
* Phillip worked on the Gantt chart for Deliverable I

Meeting 2: Cameron, Andrew, Phillip - September 12th, 3pm - 3:50pm (50 min)

* Discussed what development model we’re using: prototyping
* Clarified the gameplay of the application
* Continued to work on Deliverable I
* Group worked on a slide show for our presentation

Meeting 3: Cameron, Peter, Phillip - September 14th, 12:20pm - 1:40pm (80 min)

* Finalized our PowerPoint presentation
* Practiced presentation

Meeting 4: All group members - October 8th, 4pm - 7:30pm (210 min)

* Began work on Deliverable II
* Andrew worked on the use case/class diagrams
* Philip worked on Systems Functions
* Cameron worked on the Systems Functions section and Overall Description
* Peter worked on the Introduction section

Meeting 5: All group members - October 9th, 4:20pm - 6:35pm (135 min)

* Everyone met together to finish up work on Deliverable II
* Peter worked on References and Project Scope
* Andrew finished the Overall Description section
* Cameron completed the External Interfaces section
* Phillip worked on additional nonfunctional requirements to include performance requirements and safety/security requirements

Meeting 6: Cameron, Andrew, Phillip - October 16th, 5:15pm - 7:35pm (140 min)

* Implemented feedback from Deliverable II peer review during class
* Finalized and submitted Deliverable II

Meeting 7: All group members - November 5th, 12am - 1am (60 min)

* Discussed first update to app
* Philip implemented a rudimentary inventory system to allow players to drop and drop items into their inventory, as well as organize it
* He also added an backend item database to hold base stats for items

Meeting 8: Phillip, Andrew - November 5th, 3pm - 3:20pm (20 min)

* Discussed bugs with the current implementation of the inventory system and possible fixes

Meeting 9: All group members - November 11th, 12:45pm - 6pm (315 min)

* Second major update to app
* Phillip continued work on refining inventory system by adding an AddItem button to add a random item (sourced from the item database) to the player’s inventory and implemented save states for inventory organization
* Phillip also started creating a character screen for equipping items
* Peter worked on a backend random number generator for item randomization and generation
* Andrew began work on music and SFX, as well as a currency system that credits the player based on number of steps taken
* Discussed including an Android sensor plugin for physical step counting
* Cameron worked on UI
* Clarified goals for item/inventory system and in-game currency use

Meeting 10: All group members - November 12th, 4:25pm - 8pm (215 min)

* Phillip pushed a Zone selection screen update to the repository and discussed updating the UI based on the current zone
* Phillip fixed a persistent system bug when saving Zones
* Peter uploaded music/SFX to Google Drive
* Cameron began work on the combat system
* Andrew continued work on the currency system

Meeting 11: Cameron, Andrew, Phillip - November 13th, 12:00pm - 2pm (120 min)

* Phillip created an item randomizer to populate the player’s inventory with items with a random type, name, strength modifier, and color
* Cameron finished building the 3D combat scene and enemy and began working on programming attacks
* Andrew started Android integration to allow the game to run on actual devices

Meeting 12: All group members - November 24th, 10:20pm - 10:40pm (20 min)

* Phillip completed a pet system that allows players to unlock pets when reaching a new zone, finished the save system, and began implementing a shop to replace the AddItem button
* Andrew continued work on Android integration
* Cameron continued work on the combat system
* Peter continued work on item randomization/attributes and Android integration

### Member Contribution Table

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| --- | --- | --- | --- |
| Member Name | Contribution Description | Overall Contribution (%) | Note (if applicable) |
| Phillip Buckreis | *System contribution:* wrote main scripts and systems (inventory, character screen, zone selection, save system, pets, shop system, main UI) | 35 | Went out of his way to add in features in free time, often adding multiple per day while simultaneously fixing bugs |
| Andrew Buikema | *System contribution:* Android integration, currency system, step counter integration, miscellaneous bugs and features    *Report contribution:* user manual, features, and source code documentation | 30 | Strong software development skills allowed him to adapt and easily contribute to a large portion of the coding |
| Cameron Fullerton | *System contribution:* sole creator and tester of combat system and UI | 30 | Created the entire combat system by himself - a sizeable aspect to the game |
| Peter Hansen | *System contribution:* miscellaneous bugs and testing  *Report contribution:* user manual, meeting minutes, and member contribution table | 5 | Lack of programming ability stunted system contribution; focused primarily on documentation and bug fixing instead |