Software Implementation and Testing Document

For

Korona Kingdom

Version 1.0

Authors:

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1. Programming Languages (5 points)

- We are using Python 3.6 (or greater version) for the game loop logic. The majority of us had Python experience and wanted to make a game so Alex recommended we use the Python arcade library. It has to be Python 3.6 or greater because the arcade library does not support the older versions of Python.
- We are also using Extensible Markup Language (XML) for map creation. This was the result of us wanting to use a tiled map editor recommended by arcade. The output of using this editor is a file in the translation memory exchange(.tmx) format.

2. Platforms, APIs, Databases, and other technologies used (5 points)

Inside Project:

- We are using the arcade library for input logic, physics, drawing sprites, drawing the window, and animations. Anything we want the player to see/do will be done using the arcade library.
- We are using the tiled map editor for map creation.

Project Tools (Each of us have our own set-up):

- Editor: Pycharm
- Version Control: Github
- Image Manipulation: GIMP

3. Execution-based Functional Testing (10 points

Karl Cooley

Inventory

- Tested than when the player hits [I] the inventory pops up / exits. There is currently no doubling of panels. (1/2)
- Tested that the inventory and encounter system should never appear on screen at the same time. Tried to movement keys while in inventory and using [I] while the encounter screen was up. Current behavior is correct. (12/13)

Alexander Kostandarithes

Inventory

- Tested that insertion/deletion works
- Tested that File I/O works without major glitches
- Ensured that an object can be located in an inventory
- Ensured that objects are correctly stored and listed within the inventory

Karl Cooley

Overlay

Player Info

- Tested that when the user walks around the overworld the user's info, user's energy, and player's image is shown and static. However, this information is incorrect. (1/2/3)

Dialogue Box

- Tested that the dialogue box shows who is speaking, shows an image of the speaker, and shows what is being said. (2/3/4)
- There is little to no interaction with anything currently and the dialogue box is always on your screen unless you turn overlay off. (1/5)

Menu Box

- Tested that when the user walks around the overworld the menu boxes are shown and static. The only way to access menu options is by keyboard shortcuts (which will be tested in their associated sections). (1)

Ryan Goldberg

Animation

- Ensured the player walking animations function in the overworld and when entering a new area(discovered a crash when entering new areas but patched it)1
- Ensured the player sprite flips directions when walking around.(2)
- Ensured the animation doesn't conflict with other implemented systems(discovered a bug that allowed the player to walk around when in menus)(1)
- Player has a walk animation when moving around

Alexander Jordan

Map system

- Overworld:
  - Ensured that the player begins at the proper location on the overworld map
  - Ensured that all 'walls' on the map worked properly
  - Ensured that player can walk through forests
  - Ensured artwork/graphics were suitable
- Dungeons:
  - Ensured that entering and exiting dungeons works properly
  - Ensured that user restarts at the proper location on the overworld when exiting each dungeon

Anthony Micciche

Combat system

- Developed and tested a text based trivial combat system
- Ensured that damage and stats were handled correctly

4. Execution-based Non-Functional Testing (10 points)

Karl Cooley

Inventory

1. Tested that the inventory system took less than a second to load.

Alexander Kostandarithes

Inventory

1. Tested that all functions work within a reasonable time scope

Ryan Goldberg

Animation

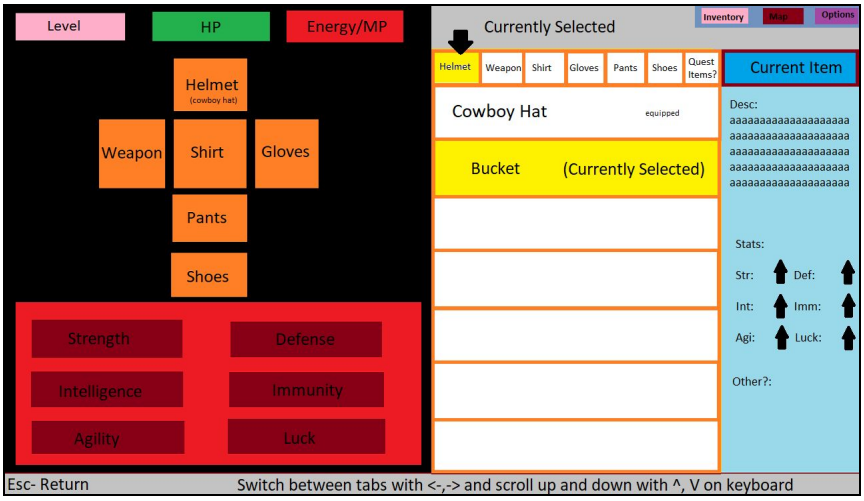
1. Ensured the user is able to identify that the player is walking
2. Walk animations do not have any sort of noticeable effect on performance

5. Non-Execution-based Testing (10 points)

Karl Cooley

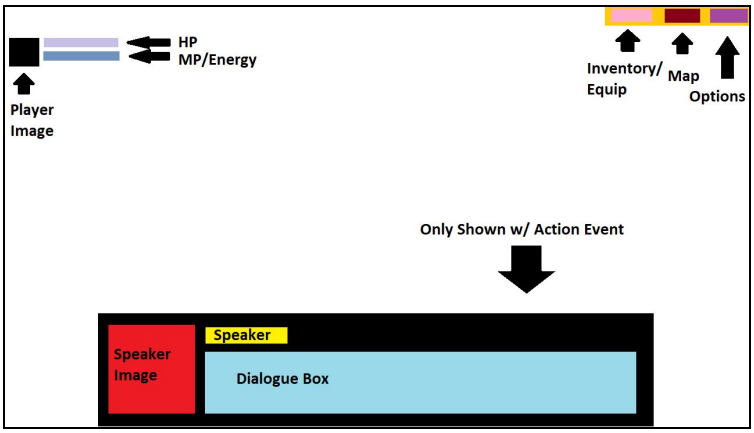
Inventory

1. Asked members if they approved of the inventory template. Created a mock-up of inventory before code implementation.



Overlay

1. Asked members if they approved of the overlay template. Created a mock-up of overlay before code implementation.



Ryan Goldberg

Animation

1. Created sprites for player movement and ensured they were cohesive and made great placeholders for more detailed animation.