

U of RPG

Final Presentation

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Overview

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 - Prior work/References
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- Individual Report (role each group plays)
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Project Overview

Goals

- Create a 2D role playing game that takes place on U of R campus
- Top-down game w/ simple activities and objectives to progress
- Build without a game engine
 - More challenging
 - Build a greater understanding
 - Utilize several libraries
- Provide a fun game for university students and prospective students as well
- Host game online at www.uofrpg.com

Prior Work/References

- Similar style game to ex. Pokemon
- GitHub
- Dedicated Linux web server
- Parallels Plesk backend management
- HTML5, JS, jQuery, CSS
- Parse (Facebook) database
- EaselJS visual library
- All else built from scratch

Technical Approach

1: CORE

FRAMEWORK

Provides structural classes and controls how the sections interact with each other

2: FUNCTIONALITY

USER INTERFACE

Where the game is displayed and how players interact with the game

BACKEND

Manages the database of users and game save data

3: GAME MECHANICS

PLOT

Provides story, which dictates the timeline of when all other elements come into play

ARTIFICIAL INTELLIGENCE

Controls behavior of enemies and NPCs (primarily during battles)

PROGRESSION

Controls the player's progress and how the player gains skills as they advance in the game

4: AESTHETICS

SOUND DESIGN

Provides music and sounds to enhance the player experience

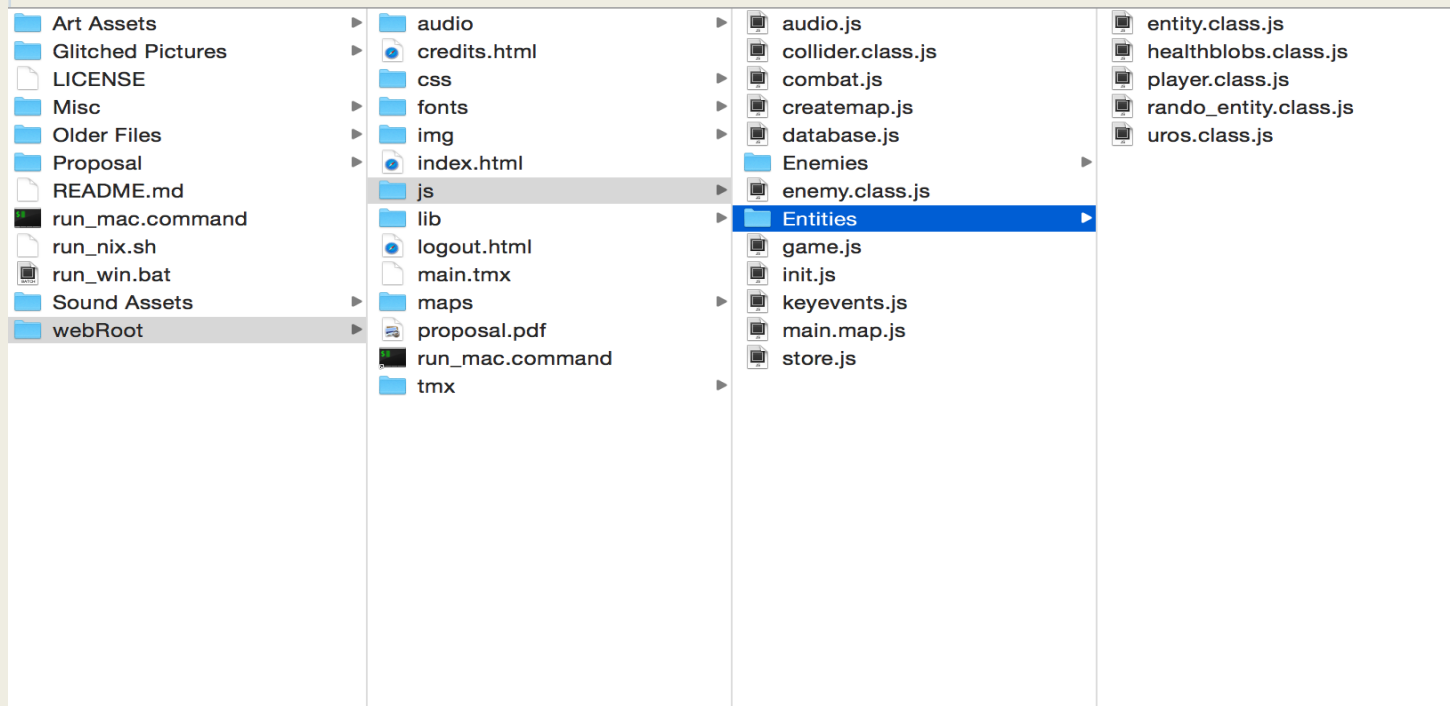
ANIMATION

Controls movement of anything in the game. Events are created by Plot, and set out to be achieved efficiently by Animation

ART

Creates all art assets. Ensures everything is aesthetically pleasing to the user.

Technical Approach (cont.)





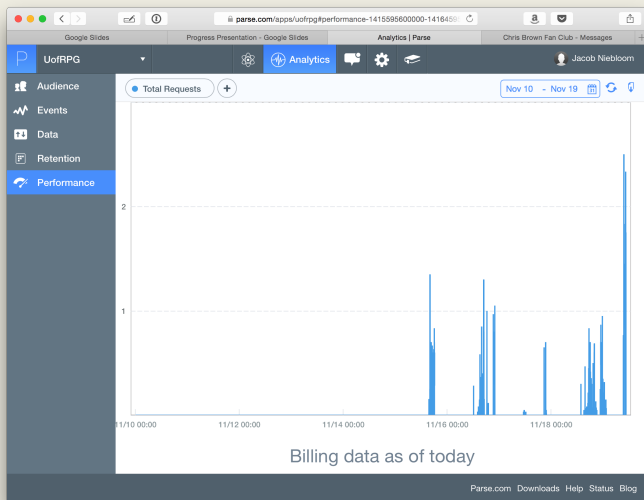
Individual Reports

Framework

- Libraries
 - EaselJS
 - Tiled
- OOP with “classes”
- Dynamic map code
- Development utilities

Backend

- Database made with hashed passwords
- Game remembers - caches - the user you were logged in a last for auto login feature
- Game data stores progress live and creates analytics unique for each user
- Logout page developed that clears user cache
- Amount of total steps for each user stored in database
- Amount of URoS for each user stored in database and retrieved at login
- Created an inventory for your URoS in the menu bar
- All of your stats are saved in the database.
- Everything you do in the game -> saved -> processed -> ready to be loaded on your next login



AI / Enemies

- Fully featured combat implemented
- 6 Different kinds of enemies, each with different stats
 - Different decision making processes
- Player's stats increase with level
 - Enemies increase in level as the player does
 - Enemies' stats scale with level as well
- Combat rewards money
 - Incentive to fight and level up
 - Money rewards increase with enemy level

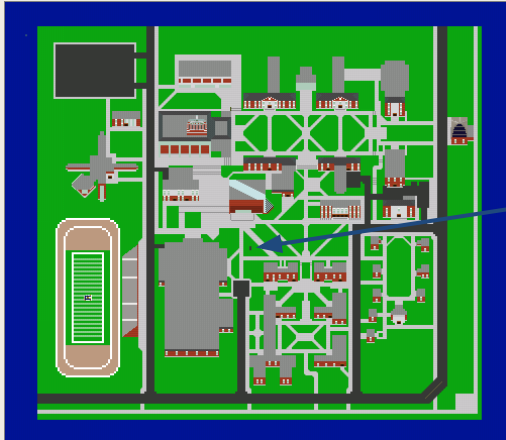
User Interface (UI)

- Website look and feel
- Container handling
- Menu system and store
- Detailed HUD
 - minimap
 - health bar
 - experience bar
 - temperature support



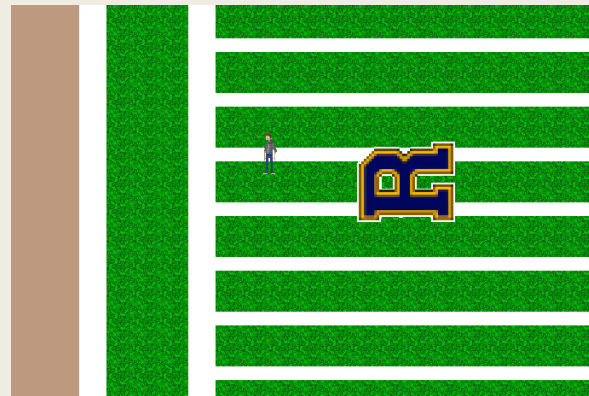
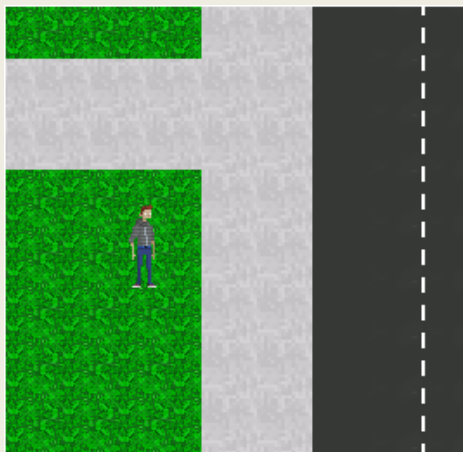
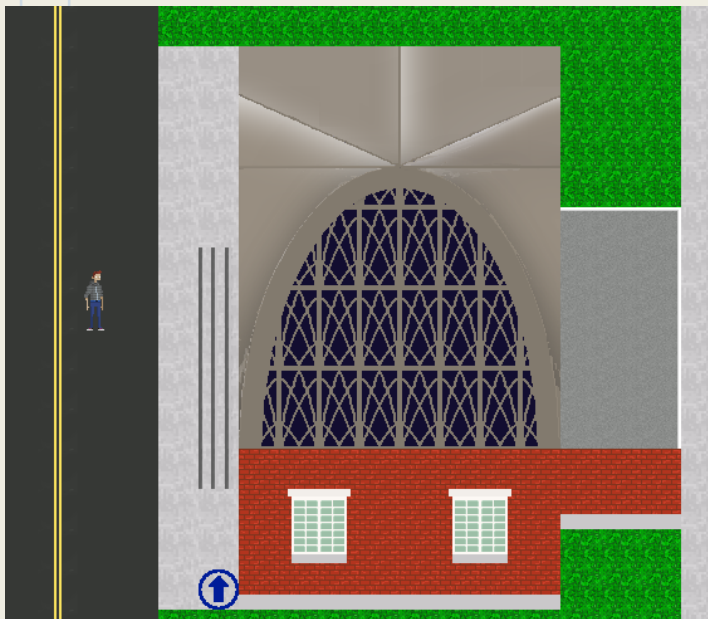
Art

- When it comes to a game of almost any sort, art is definitely a major aspect that needs to have a good amount of time dedicated to it. Luckily, we have had a couple of members have art be their priority when creating this game.
- Over the past few months, through drawing and editing in various software, we have created approximately **300 unique 32px tiles**. These have been assembled into our tiled map editor to create a large and detailed **251 x 218 (that's 8032 x 6976 pixels!)** tile map based on the University of Rochester. You will see the scale of the map in the demonstration, but there are some art examples on the next slide as well.
- We have also spent time making sprites based on the games developers! They are shown on the next slide as well.



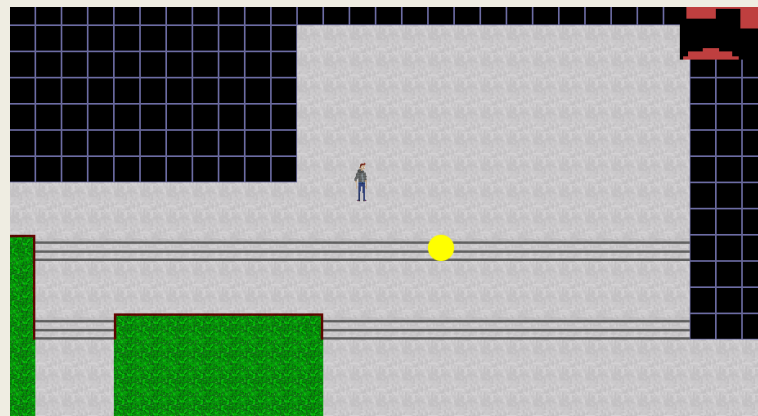
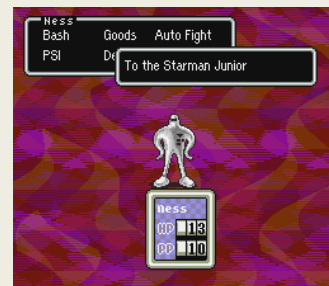
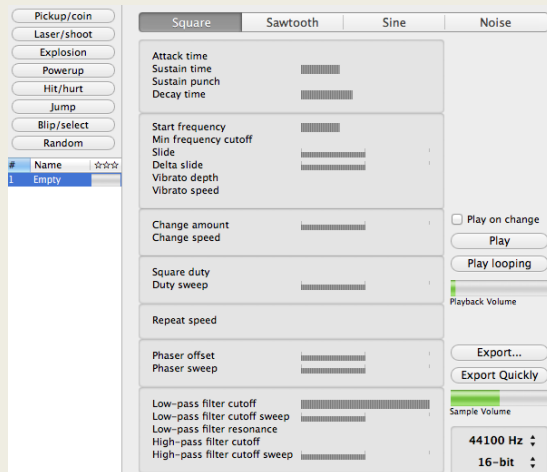
That black rectangle is the size of the player in comparison to our map!

Art Examples



Sound Design

Sound Design went through various different changes, but we decided on designs that were efficient to implement without subtracting from the feel of the game.





Final Product

Summary

- 2D role playing game taking place on U of R campus
- Built an incredible, dynamic game system
 - Allows for easy additions
- Each group has collaborated well together - combining has been easy
- Challenges
 - Size of project
 - Each group fulfilling responsibilities by deadlines
 - Close to a primitive functioning game
 - Different coding languages
- Incredible learning experience

Demonstration

<http://www.uofrpg.com>



Questions?

