

# U of RPG

## Progress Report Presentation

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# Overview

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  - Technical approach
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# Quick Review

# 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](http://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

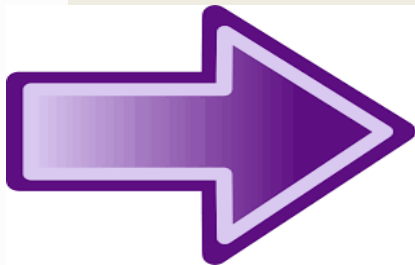
Controls movement of anything in the game. Events are created by Plot, and set out to be achieved efficiently by Animation

### ART

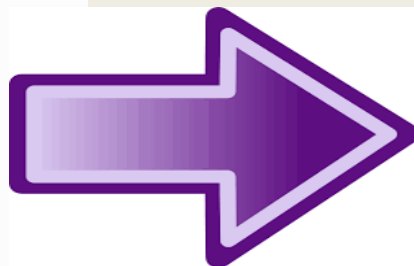
Creates all art assets. Ensures everything is aesthetically pleasing to the user.

# Technical Approach (cont.)

- Art Assets
- Misc
- Older Files
- Proposal
- webRoot
- .gitignore
- LICENSE
- README.md
- run\_mac.command
- run\_nix.sh
- run\_win.bat



- css
- fonts
- img
- js
- lib
- tmx
- credits.html
- index.html
- logout.html
- main.tmx
- proposal.pdf
- run\_mac.command



- createmap.js
- entity.class.js
- game.js
- init.js
- keyevents.js
- main.map.js
- mainold.map.js
- player.class.js
- queue.js



# Individual Reports

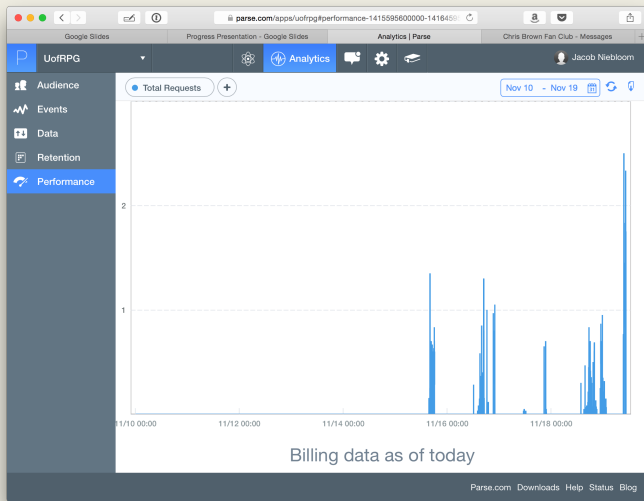


# Framework

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

# Backend

- Database remade 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
- Currently working on implementing a universal high score board and saving more of the games users' data

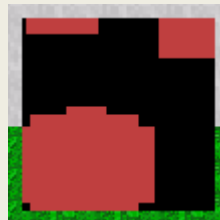


# AI / Enemies

- For now, simple dummy screen when combat (would be) entered
  - Happens randomly
  - Chance increases with “steps” walked
  - During combat, entities can’t move
- Basic functionality in place to monitor player’s health
  - Will eventually have combat implications

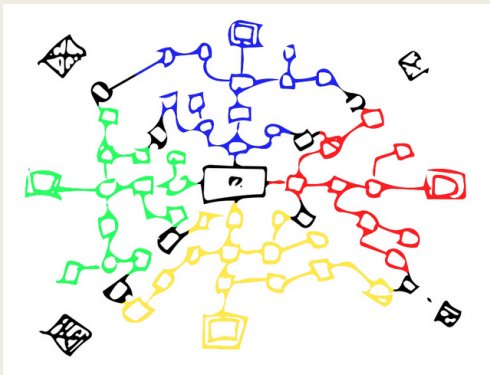
# User Interface (UI)

- Website look and feel
- Container handling
- HUD added
  - minimap
  - health bar

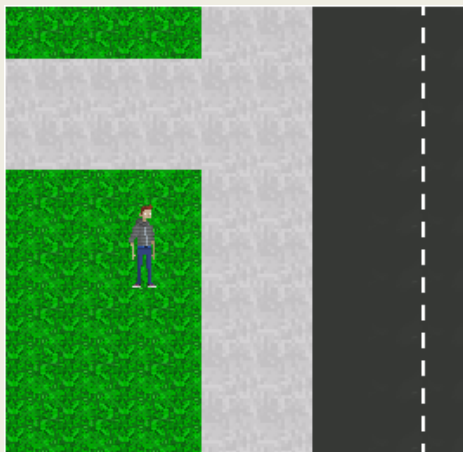
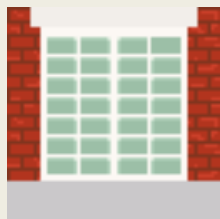
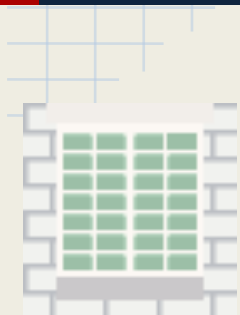


# Art, Progression, Plot

- The art of our project has consistently been making improvements over the past couple months. Work on sprites, map environments, and backgrounds always have a couple team members working to complete these areas. While art will be easily visible in the demonstration, a few sample images are provided on the next slide.
- Combat mechanics and gameplay progression have been almost fully determined and will soon be implemented
- Characters level up, skill tree and ability progression mapping is underway, basic outline set outside of the code
- Plot is currently still being worked on, but will most likely be basic. You take the role as one of the game developers on a quest to navigate through campus while acquiring items and defeating enemies



# Art Examples



# Animation, Sound Design

- Animation is nearly completed.

Sound design interface for a game engine.

**Waveform Selection:** Square, Sawtooth, Sine, Noise

**Attack time:** [Slider]

**Sustain time:** [Slider]

**Sustain punch:** [Slider]

**Decay time:** [Slider]

**Start frequency:** [Slider]

**Min frequency cutoff:** [Slider]

**Slide:** [Slider]

**Delta slide:** [Slider]

**Vibrato depth:** [Slider]

**Vibrato speed:** [Slider]

**Change amount:** [Slider]

**Change speed:** [Slider]

**Square duty:** [Slider]

**Duty sweep:** [Slider]

**Repeat speed:** [Slider]

**Phaser offset:** [Slider]

**Phaser sweep:** [Slider]

**Low-pass filter cutoff:** [Slider]

**Low-pass filter cutoff sweep:** [Slider]

**Low-pass filter resonance:** [Slider]

**High-pass filter cutoff:** [Slider]

**High-pass filter cutoff sweep:** [Slider]

**Play on change:** ☐

**Play:** [Button]

**Play looping:** [Button]

**Export...:** [Button]

**Export Quickly:** [Button]

**Playback Volume:** [Slider]

**Sample Volume:** [Slider]

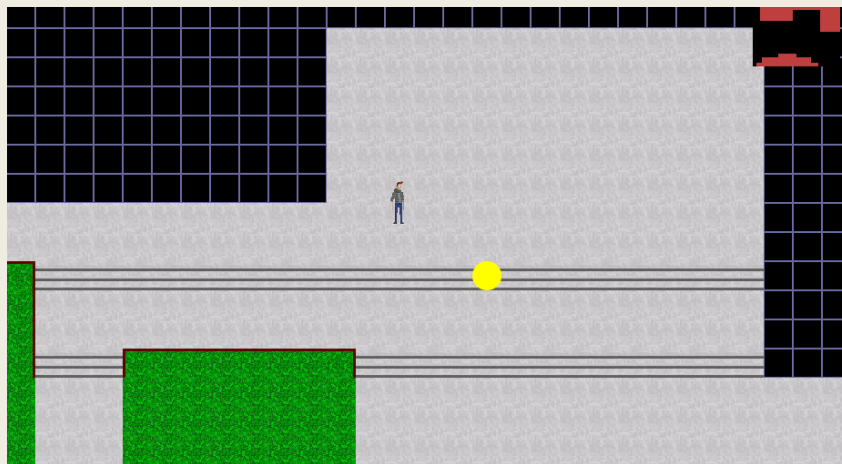
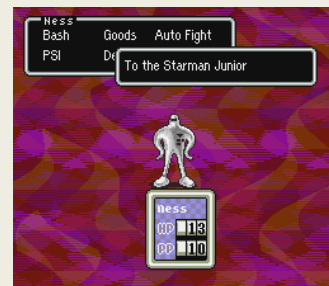
**44100 Hz:** [Up/Down Arrow]

**16-bit:** [Up/Down Arrow]

**Buttons:** Pickup/coin, Laser/shoot, Explosion, Powerup, Hit/hurt, Jump, Blip/select, Random

**Table:**

#	Name	☆☆☆
1	Empty	



# Current Collective State



# 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>



# Timeline and Milestones

- November 23, 2014
  - Functioning NPCs, Interactive Tiles
- November 29, 2014
  - Completed map with all images implemented
  - Functioning events with activities/objectives to complete
- December 1, 2014 (Beta version)
  - Animation and simple character/combat AI
  - Menu system and music
  - Saving data to database (90% already implemented)
  - “Functioning game”
- December 6, 2014 (Final version)
  - Bug fixes
  - Minor additions and performance improvements

# Questions?

