

The background is a dark navy blue. In the top-left corner, there are two overlapping geometric shapes: a blue parallelogram and a light green parallelogram. In the top-right corner, there is a grey, 3D-rendered circuit board pattern. In the bottom-left corner, there is a circular, grayscale image of a printed circuit board (PCB) with various electronic components. The title 'RPG Compendium' is written in a large, white, sans-serif font in the center-right area.

# RPG Compendium

Zach Burnaby

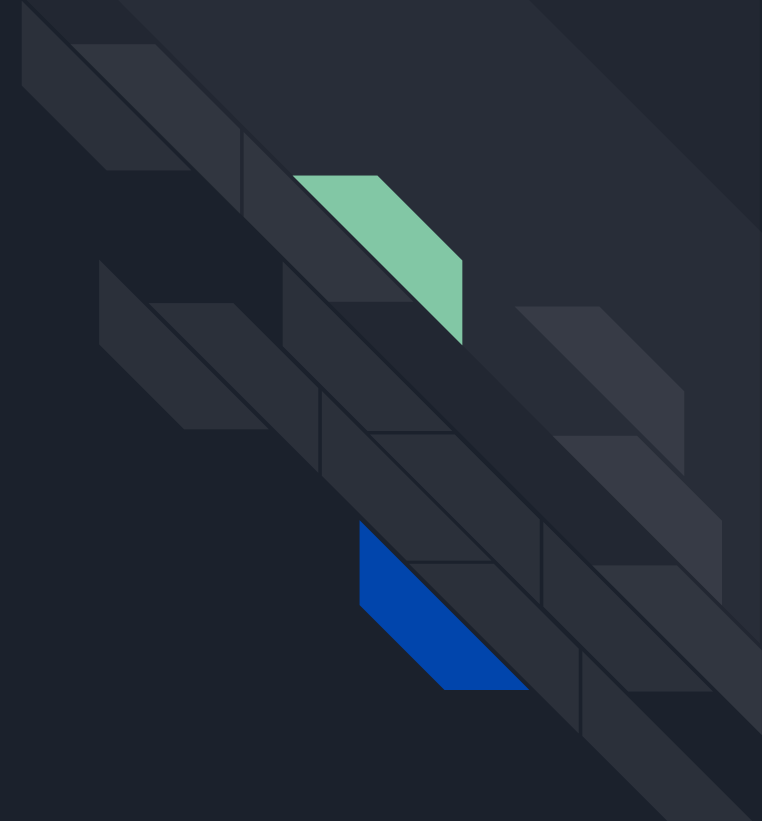
Overview

Technology Used

Project objective

Features Implemented

Live Demo



# Main Interface

Back to World Select

Log Out

Reload

## TheRedLancer's Erronia RPG World

Select an item below to expand!

Regions

>

Heroes

>

Monsters

>

Magic Items

>

NPCs

>

All Dungeons

>

All Cities

>

Fun and Interesting stats!!!

Region Name	Average Monster Difficulty
Rosewood Forest	7.5
Redbeak Hills	4
Western Ridge	1.25



# Overview

- Store Data about my Dungeons & Dragons world
- Other WebApps were very complicated
- Something that Friends could use
- Simple interface
- Try using PHP, a new tech for me
- Should Have Started Earlier...

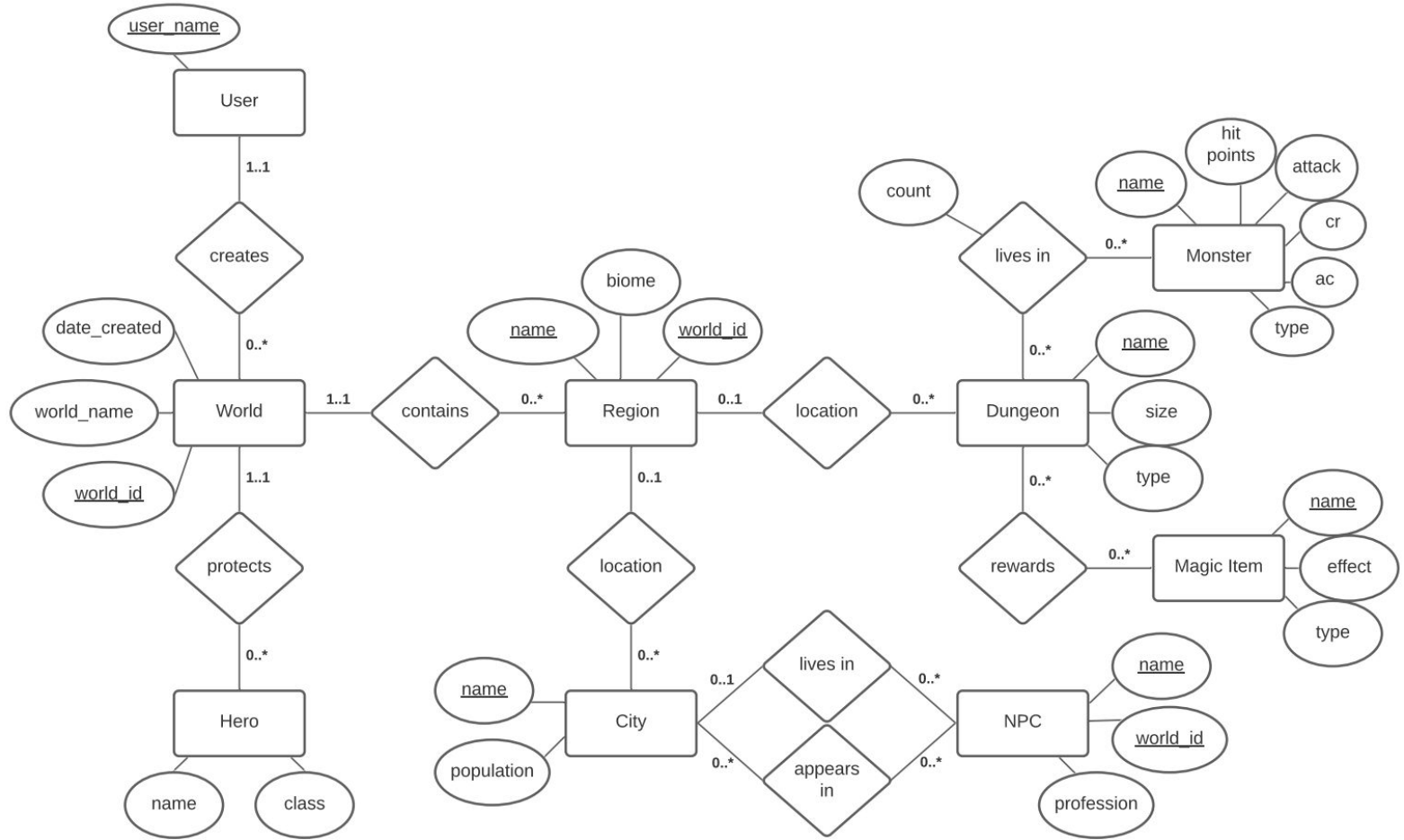
# Technology Used



- Barney.gonzaga.edu - PHP Server
- Mix of PHP, JS, HTML, CSS, SQL
- sshfs file mounting for development and file transfer
- MariaDB server accessible through ADA
- Used SSH more for this project that I have before
- VS Code for development
  - Installed some extensions to help with the PHP



# ER Diagram





# OLTP, OLAP Features

## OLTP

- Get All Heroes, Monsters, Regions in a world
- Get all Cities in a given Region
- Get all Monsters in a given Dungeon
- Add new Regions, Monsters, Dungeons etc.
- Delete any attribute

## OLAP

- Get average difficulty of a region
- ... and bad time management

Some features I intended to implement:

- Admin Tab
- Understand trends in data across all users
  - Regions with more cities have more dungeons?
  - Total count of each monster used in dungeons
  - Average size of Dungeons
  - Most common profession in cities with population > 10,000 vs most common profession in cities with population < 100



# OLAP

Getting the average difficulty of a region:

```
SELECT r.region_name, AVG(m.cr * dm.monster_count) as average_cr
FROM Region r LEFT OUTER JOIN Dungeon d USING (region_name, world_id) LEFT OUTER JOIN DungeonMonster dm
USING (dungeon_name, world_id) LEFT OUTER JOIN Monster m USING (monster_name, world_id)
WHERE r.world_id = 2
GROUP BY r.region_name
ORDER BY average_cr DESC;
```





# Project Demo

<https://barney.gonzaga.edu/~zburnaby/project/homepage.html>