

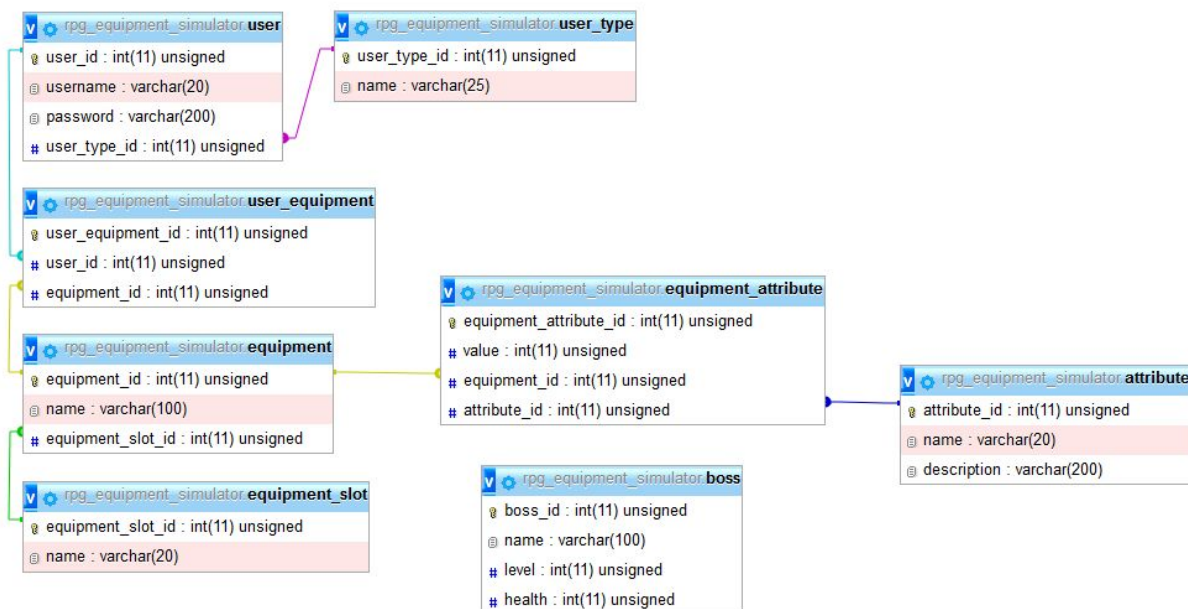
RPG Equipment Simulator Design Document

DB Schema:

- **user**
 - user_id
 - username
 - password
 - user_type_id (FK references user_type)
- **user_type**
 - user_type_id
 - name ('admin', 'player', 'guest')
- **attribute**
 - attribute_id
 - name ('strength', 'agility', 'intelligence', 'stamina')
 - description
- **equipment**
 - equipment_id
 - name
 - image
 - equipment_slot_id (FK references equipment_slot)
- **equipment_slot**
 - equipment_slot_id
 - name ('weapon', 'chest', 'legs', 'helm')
- **equipment_attribute**
 - equipment_attribute_id
 - value
 - equipment_id (FK references equipment)
 - attribute_id (FK references attribute)

- **user_equipment**
 - user_equipment_id
 - user_id (FK references user)
 - equipment_slot_id (FK references equipment_slot)
 - equipment_id (FK references equipment)
- **boss**
 - boss_id
 - name
 - level (Used to determine boss' attributes)
 - health

ER Diagram:



DB schema modified from: <https://github.com/jgoodman/MySQL-RPG-Schema>

User Story:

- As a user, I want to view the available equipment without logging in (“Continue as Guest”).
- As a user, I want to login and select gear for my character.
- As a user, I want to be able to logout and login from anywhere and have my gear setup be saved.
- As a user, I want my gear’s stats to be displayed in a presentable manner.
- As a user, I want to know if I can defeat certain bosses with my character setup.
- As an admin, I want to be able to login to the same page as users, but with additional functionality in editing the database.

Create login page, have option for guests to create account after setting up their character, use cookies to save setups for guests

Mock-up:

Welcome, [username]! [\[Logout\]](#) [\[\[Replaces logout button for guests only\] Create User\]](#)

| Name | Name | Name | Name |
|--------------|--------------|--------------|--------------|
| Image | Image | Image | Image |
| Primary Stat | Primary Stat | Primary Stat | Primary Stat |
| Stamina | Stamina | Stamina | Stamina |

[Edit Weapons \(Admin only\)](#) [Edit Helms \(Admin only\)](#) [Edit Chests \(Admin only\)](#) [Edit Legs \(Admin only\)](#)

[Select Boss Dropdown Menu](#)

[Simulate Button](#)

[Find more bosses from Blizzard](#)

[Show results after simulation](#)

[Generate Equipment Report with sorting \(Admin only\)](#)

[Generate Boss Report with sorting \(Admin only\)](#)

Stats per equipment piece (Double primary stat for weapons, no stamina):

Tier 1 Stats (Grunt's):

+10 primary

+10 stamina

Tier 2 Stats (Sergeant's):

+20 primary

+20 stamina

Tier 3 Stats (Champion's):

+35 primary

+35 stamina

Tier 4 Stats (Warlord's):

+ 55 primary

+ 55 stamina

Tier 5 Stats (High Warlord's):

+80 primary

+80 stamina

Improvements:

- Fix stat glitch (Requires two button presses, shoddy workaround)
- Improve Battle Simulation Algorithm
- Allow users to save their gear
- Allow stat insertions from Equipment Manager page