
Now, let's proceed with the design and implementation plan for overhauling the `Player` class with NetHack-style attributes.

Design Document: NetHack-Style Player Attributes

1. Overview

The goal is to integrate the six classic D&D/NetHack attributes (**Strength, Dexterity, Constitution, Intelligence, Wisdom, Charisma**) into the `Player` class. These attributes will become the player's core stats, which in turn will influence the existing "combat" stats (`warStrength` and `spiritualStrength`).

For clarity and to align with standard RPG terminology, we will make the following "renames" in our design:

- `warStrength` will be treated as **Health (HP)**.
- `spiritualStrength` will be treated as **Mana (MP) or Power**.
- `maxWarStrength` will be `baseMaxHealth`.
- `maxSpiritualStrength` will be `baseMaxMana`.

The new attributes will modify these values and other game mechanics.

2. New Attribute Definitions

1. Strength (STR):

- **Purpose:** Governs physical power.
- **Effect:**
 - Increases melee damage (from `WAR_WEAPON` items).
 - (Future) Increases carrying capacity.

2. Dexterity (DEX):

- **Purpose:** Governs agility and ranged prowess.
- **Effect:**
 - Increases ranged damage (from `BOW`, `CROSSBOW`).
 - Increases the player's "Armor Class" (passive damage reduction), supplementing armor.

3. Constitution (CON):

- **Purpose:** Governs health and endurance.
- **Effect:**
 - Directly increases **Max Health**.
 - Increases the amount of HP regained when resting.

4. Intelligence (INT):

- **Purpose:** Governs magical and spiritual attack power.
- **Effect:**
 - Increases magical/spiritual damage (from `SPIRITUAL_WEAPON` items).
 - (Future) Could be used to identify items.

5. Wisdom (WIS):

- **Purpose:** Governs spiritual energy and resilience.
- **Effect:**
 - Directly increases **Max Mana**.
 - Increases the amount of MP regained when resting.

6. Charisma (CHA):

- **Purpose:** Governs social interaction.
- **Effect:**
 - (Future) Will be used to determine prices in shops.
 - (Future) May be used to pacify certain (e.g., `HUMANOID`) monsters.
 - For this implementation, it will be included but have no immediate effect.

3. Affected Classes

1. `gamedata/Difficulty.java`: This enum will be expanded to include starting values for all six new attributes.
2. `gamedata/Player.java`: This class will receive the most significant update. It will:
 - Rename `warStrength` -> `health` and `spiritualStrength` -> `mana`.
 - Add fields for the six new attributes (e.g., `private int strength;`).
 - Update the constructor to pull these new base stats from the `Difficulty` enum.
 - Implement `getEffectiveMaxHealth()` and `getEffectiveMaxMana()` to be calculated from `baseMaxHealth + (CON modifier)` and `baseMaxMana + (WIS modifier)`.
 - Implement modifier methods (e.g., `getStrengthModifier()`) that will be used by other systems.
 - Update the `levelUp()` method to grant an increase to one of the six random attributes instead of `wsIncrease/ssIncrease`.
 - Update the `rest()` method to use CON and WIS for health/mana restoration.
3. `managers/CombatManager.java`: The `playerAttack()` method will be updated to fetch attribute modifiers from the `Player` (e.g., `getStrengthModifier()`) and add them to the damage calculation.
4. `rendering/Hud.java`: The HUD will be updated to:
 - Rename "WS" and "SS" labels to "HP" and "MP".