**Game Design Document (GDD) - Touhou RPG Game**

**1. Game Overview**

**Project Name: Touhou RPG Game**

**Genre: STG (Shoot 'Em Up) + RPG**

**Platform: PC**

**Target Audience: Touhou fan community**

**Monetization Model: Paid game with optional DLC and microtransactions**

**Team Structure:**

* **Game Director & Lead Programmer: You (Team Manager)**
* **AI (Game Designer + Level Designer)**
* **AI (Pixel Artist + Animator)**
* **AI (Sound Designer + UI Designer)**
* **AI (QA Tester + Balance Adjustments)**

**2. Game Concept & Story**

**Core Idea:**

**A fan-made Touhou-style game that blends traditional STG bullet hell combat with RPG progression. Players earn resources from STG shooting stages, strengthen their character, and battle against powerful bosses in an open-world setting.**

**Game Setting:**

**A fantasy world based on the Touhou universe, featuring familiar landscapes, characters, and mystical bullet-hell battles.**

**Story Summary:**

**The balance of Gensokyo is threatened by an unknown force. To restore harmony, the protagonist embarks on a journey, facing spell-casting bosses, gathering lost artifacts, and unlocking hidden powers through STG combat and RPG mechanics.**

**Main Characters & Playable Entities:**

* **Players choose from a roster of characters, each with unique shooting styles, abilities, and spell cards.**
* **NPCs and enemies are based on existing Touhou characters, each with distinct personality and attack patterns.**

**Objectives:**

* **Defeat bosses through STG battles.**
* **Earn resources and power-ups to upgrade abilities.**
* **Progress through chapters and missions to unlock story elements.**

**Unique Gameplay Mechanics:**

* **Resource Management: Earn and allocate power-ups strategically.**
* **Open-World Exploration: Players can choose which boss to challenge first.**
* **STG Battle Progression: RPG mechanics influence bullet-hell difficulty.**

**3. Gameplay Mechanics**

**Core Features:**

* **STG Combat: Traditional bullet-hell shooting system.**
* **RPG Progression: Characters gain skills, spell cards, and upgrades.**
* **Open-World System: Players can freely explore and select battles.**
* **Inventory & Resource Management: Manage collected power-ups and spell cards.**
* **Dynamic Boss Fights: Unique spell card phases with increasing difficulty.**

**Player Progression:**

* **Unlock new stages and characters through battles.**
* **Gather resources to enhance abilities.**
* **Defeat all bosses to unlock the final battle.**

**AI & NPCs:**

* **Enemies: Traditional Touhou-style bosses and minions.**
* **AI Complexity: Each boss follows scripted spell card patterns.**

**4. Art & Visual Style**

**Visual Design:**

* **2D Pixel Art inspired by the Touhou series.**
* **Isometric Perspective for world exploration.**
* **Motion Graphics & Spell Effects for STG battles.**

**Animation Requirements:**

* **Smooth pixel animations for characters, bosses, and bullet patterns.**
* **Dynamic spell card effects.**

**5. Sound & Music**

**Audio Style:**

* **Touhou-style remix soundtracks for battles and stages.**
* **Custom sound effects for bullet interactions, spell activations, and UI.**
* **No voice acting.**

**6. Technical Aspects**

**Game Engine & Tools:**

* **Engine: Love2D / LuaSTG**
* **Programming Languages: Lua, C++**
* **Art Tools: Leonardo.Ai, PixAI, Aseprite**
* **Music Tools: AIVA, Suno AI, FL Studio**
* **Testing & Debugging: Unity ML-Agents, OpenAI Codex for playtesting automation**

**Hardware Requirements:**

* **Optimized for low-end PCs to ensure accessibility.**

**7. Level Design**

**Game Structure:**

* **4 Chapters, each containing 7 boss battles.**
* **Each boss stage features 6 spell card phases.**

**Level Progression:**

* **Non-linear: Players can challenge bosses in different orders.**
* **Resource System: Players earn rewards based on performance.**

**8. Monetization & Business Strategy**

**Revenue Model:**

* **Paid Base Game with optional DLC expansions.**
* **Microtransactions for cosmetic items.**

**Distribution:**

* **Steam (primary platform).**
* **Potential future expansion to other platforms.**

**9. Development Timeline & Milestones (3 Months Plan)**

**Month 1 - Pre-Production & Prototyping:**

* **Define mechanics, bullet-hell systems, and RPG progression.**
* **Build a prototype with a playable single boss fight.**
* **Generate initial pixel art and UI mockups.**

**Month 2 - Production & Level Development:**

* **Implement 7 bosses and bullet-hell spell patterns.**
* **Create and integrate STG battle UI & inventory system.**
* **Test and refine AI-generated attack patterns.**

**Month 3 - Testing, Polish, and Release Preparation:**

* **Playtest all levels and spell cards.**
* **Optimize performance for low-end PCs.**
* **Prepare marketing assets and Steam page.**

**10. Post-Launch & Future Plans**

* **DLC Content: Additional chapters & new playable characters.**
* **Community Updates: Balance patches & event-based content.**
* **Potential expansions to mobile or console versions.**