**Project Brief: Dice Roller Companion for Tabletop Players**

**Intended Audience:** Tabletop RPG players (e.g., D&D)

**Project Goal:** To create a dice-rolling tool that accompanies tabletop gameplay with randomised rice rolls, customizable roll macros, session tracking, and detailed dice statistics.

**Broader Stakeholders:** Tabletop masters, players, and general gaming communities.

**Key Requirements:**

* **Dice Rolling:** Supports multiple dice types and combinations (e.g., d4, d6, d8, d10, d12, d20) with custom roll macros for complex actions.
* **Session Management:** Tracks and logs dice rolls with timestamps, allowing players to review session history and export roll data.
* **Custom Presets:** Players can save roll presets and game-specific configurations for future use.
* **User Accounts:** Provides user authentication to save profiles, custom rolls, and session histories.
* **Statistics & Analytics:** Displays dice roll statistics and outcomes, helping players analyze their luck and strategy.
* **User Interface:** A clean, customizable interface with themes, dice skins, and immersive sound effects.

|  | **Feature Description** | **Details** |
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| **Graphical User Interface (GUI)** | **Main Screen** | A clean and intuitive interface where users can roll dice, see results, add modifiers, and view rolling history. |
|  | **Custom Rolls** | Allow players to create custom dice roll macros for frequently used rolls (e.g., 3d6+4). |
|  | **Saved Presets** | Players can save different dice roll presets for different games or characters. |
|  | **Session Tracker** | Track and save rolls made during a game session with timestamps. |
|  | **Statistics View** | Display dice roll statistics, showing the distribution and frequency of results over time. |
| **Authentication System** | **Sign-up/Sign-in** | Users will create accounts to save custom rolls, preferences, and session histories. |
|  | **User Profiles** | Profiles store saved games, roll histories, and player-specific settings. |
|  | **Authentication GUI** | A user-friendly sign-up/sign-in interface that is integrated into the main application. |
| **Persistency System** | **Database Integration** | Store user data (roll histories, custom macros, user profiles) in a local database or file system. |
|  | **Data Backup** | Allow players to back up data and sync it across different devices. |
|  | **Recovery** | Enable users to recover their data and roll history after logging in on a new device. |
| **Dice Rolling Engine** | **Multiple Dice Types** | Support for various dice types (d4, d6, d8, d10, d12, d20, and d100). |
|  | **Custom Dice Combinations** | Allow users to input combinations of dice (e.g., 2d10 + 1d20) and add modifiers. |
|  | **Roll History** | Display a history of rolls with timestamps and results for tracking during a session. |
| **Additional Functionalities** | **Game Mode Selection** | Let users choose preset rules based on their game of choice (e.g., D&D 5e, Pathfinder). |
|  | **Sound Effects** | Add immersive sound effects for dice rolls to enhance gameplay atmosphere. |
|  | **Hotkeys/Shortcuts** | Support for keyboard shortcuts to quickly roll common dice (e.g., Ctrl+R for d20). |
|  | **Group Rolls** | Simulate group rolls for scenarios where multiple characters roll dice at once (e.g., rolling for initiative). |
| **Session Management** | **Session Setup** | Allow users to start a session, automatically logging rolls, dice types, and results. |
|  | **Roll Logging** | Track session history, allowing players to review their rolls throughout the session. |
|  | **Session Export** | Players can export roll histories for future reference or sharing with others. |
| **User Interface Customization** | **Themes & Layouts** | Customizable appearance, including themes (dark mode, fantasy themes) and layout customization. |
|  | **Profile Avatars** | Users can choose avatars or images that represent their characters within the app. |
|  | **Dice Skins** | Customizable dice appearances (e.g., metal dice, gem dice) for added visual appeal. |