**1000 Project Modular Framework Notes**

**Overview of Modular Contracts**

To enhance scalability, security, and maintainability, the **1000 Project** smart contract system has been split into five distinct modules. Each module handles a specific aspect of the project’s functionality, ensuring clarity and flexibility for future upgrades.

**1. Core Token Contract**

**Purpose**:

* Implements standard ERC-20 functionality, including token transfers, approvals, and balances.
* Manages the total token supply, minting, and burning logic.

**Key Features**:

* Total Supply: 1,000,000,000 tokens.
* Allocates 20% of the total supply to the reward and burn wallet.
* Handles token distribution outside of rewards and burns.

**2. Reward and Burn Contract**

**Purpose**:

* Manages the daily reward and burn cycles.
* Interfaces with the Core Token Contract to distribute rewards and burn tokens.

**Key Features**:

* Dynamic reward and burn percentages (default: 1%).
* Distributes rewards to up to 10% of eligible wallets, capped at 1,000 wallets.
* Integrates with Chainlink VRF for randomness in wallet selection.
* Allows for owner-based adjustments to reward and burn percentages.

**3. Cooldown Manager Contract**

**Purpose**:

* Tracks and enforces cooldown periods for wallets that sell tokens.

**Key Features**:

* Implements dynamic cooldown durations based on the percentage of tokens sold:
  + Small sales (<10%): 3 days.
  + Moderate sales (10–25%): 7 days.
  + Large sales (25–50%): 14 days.
  + Very large sales (>50%): 30 days.
* Provides a public function to query cooldown status for transparency.

**4. Governance Contract**

**Purpose**:

* Facilitates community voting and governance.

**Key Features**:

* Allows token holders to create and vote on proposals.
* Tracks votes and ensures one vote per address per proposal.
* Enables future integration with additional governance mechanisms.

**5. Blacklist Contract**

**Purpose**:

* Manages wallet blacklisting to prevent abuse and secure the ecosystem.

**Key Features**:

* Allows the owner to blacklist or remove wallets.
* Includes a function to permanently disable blacklist functionality for decentralization.

**Benefits of Modular Framework**

1. **Scalability**:
   * Allows seamless addition of features, such as staking and AI-driven automation, without disrupting the core system.
2. **Security**:
   * Smaller, single-purpose contracts are easier to audit and debug.
3. **Maintainability**:
   * Modular design simplifies upgrades and testing.
4. **Gas Efficiency**:
   * By isolating features, only relevant functions are executed, reducing gas costs.