

This is a brief detailing the required changes to the game data (spirits.json, skills.json, passives.json) and the core combat logic (useBattleLogic.ts) to enable four synergistic 4-spirit team archetypes.

The plan involves creating **five new effect/passive types** and implementing the corresponding logic in useBattleLogic.ts without hardcoding spirit data.

## 1. Core Mechanic & Logic Changes

The following mechanical additions are required to enable the four team archetypes:

New Mechanic	Type	Purpose	Implementation Focus
Crit Chance/Multiplier	Passive/Active Effect	Enable the Crit Damage Team.	calculateAttackResult (damage multiplier)
Lifesteal Buff	Active Effect	Enable the Lifesteal Tank Team.	handleAttack/handleEnemyAction (healing calculation)
Damage Reflection	Passive/Active Effect	Enable the Thorns Damage Team.	executeTriggerEffects (reflected damage calculation)
DoT Damage Amplify	Passive Effect	Enable the Poison/DoT Team.	tickPlayerEffects/tickEnemyEffects (DoT damage modifier)
DoT Stacking	Skill Effect	Support the Poison/DoT Team.	calculateAttackResult (debuff application)

## A. New Passive Abilities (shared/data/passives.json)

Three new non-stat-focus passive abilities are added:

JSON

```
"crit_mastery": {
  "id": "crit_mastery",
  "name": "Crit Mastery",
  "description": "Grants 20% Critical Hit Chance.",
  "effects": [
    {
      "type": "crit_chance_boost",
      "value": 0.2
    }
  ]
},
"dot_amplification": {
  "id": "dot_amplification",
  "name": "DoT Amplification",
  "description": "Increases Damage-over-Time dealt by 30%.",
  "effects": [
    {
      "type": "dot_damage_boost",
      "value": 0.3
    }
  ]
},
"damage_reflect": {
  "id": "damage_reflect",
  "name": "Stone Scale",
  "description": "Reflects 15% of all incoming damage back to the attacker.",
  "effects": [
    {
      "type": "damage_reflect_passive",
      "ratio": 0.15
    }
  ]
}
```

```
}  
]  
}
```

## B. New Skills (shared/data/skills.json)

Four new skills are added for setup, defense, or DoT application:

JSON

```
"crit_setup": {  
  "id": "crit_setup",  
  "name": "Aura of Precision",  
  "description": "Applies a Crit Chance Up buff (+50%) to the user for 3 turns.",  
  "damage": 0,  
  "healing": 0,  
  "unlockLevel": 1,  
  "element": "metal",  
  "effects": [  
    {  
      "type": "crit_chance_buff",  
      "value": 0.5,  
      "duration": 3  
    }  
  ]  
},  
"def_shred_dot": {  
  "id": "def_shred_dot",  
  "name": "Venomous Sap",  
  "description": "Deals light wood damage and applies 2 stacks of Poison (5% Max HP/turn) for 3 turns.  
Max 5 stacks.",  
  "damage": 0.5,  
  "healing": 0,  
  "unlockLevel": 2,  
  "element": "wood",  
  "effects": [  

```

```
{
  "type": "apply_dot_stack",
  "damageRatio": 0.05,
  "duration": 3,
  "stacks": 2,
  "maxStacks": 5
}
],
},
"lifesteal_buff": {
  "id": "lifesteal_buff",
  "name": "Blood Surge",
  "description": "Grants the user 50% Lifesteal on all damage dealt for 4 turns.",
  "damage": 0,
  "healing": 0,
  "unlockLevel": 3,
  "element": "fire",
  "effects": [
    {
      "type": "lifesteal_buff",
      "value": 0.5,
      "duration": 4
    }
  ]
},
"thorns_buff": {
  "id": "thorns_buff",
  "name": "Reflective Shell",
  "description": "Applies a buff that reflects 30% of incoming damage for 5 turns.",
  "damage": 0,
  "healing": 0,
  "unlockLevel": 2,
  "element": "earth",
  "effects": [
    {
      "type": "damage_reflect_buff",
      "ratio": 0.3,
      "duration": 5
    }
  ]
}
```

## C. Logic Changes (client/src/lib/hooks/useBattleLogic.ts)

The implementation requires modification to three main functions to introduce the new effects:

### 1. `calculateAttackResult(attacker, target, skill)` (Crit & New Buffs)

#### Required Changes:

- **Critical Hit:** Before calculating final damage, check the attacker's base passives (`crit_mastery`) and active effects (`crit_chance_buff`) to determine total crit chance (base 5% + passive + active buff). Roll the chance (e.g., `Math.random() < critChance`) and apply a **1.5x damage multiplier** if successful.
- **Skill Effects:** Implement logic to handle the new skill effect types (`crit_chance_buff`, `lifesteal_buff`, `damage_reflect_buff`) by creating the corresponding `ActiveEffect` and adding it to `effectsToApplyToCaster`.
- **DoT Debuff:** Implement logic for `apply_dot_stack`. This requires adding a temporary `effectsToApplyToTarget` array to `AttackResult` or utilizing a similar mechanism to return the debuff to the calling function (`handleAttack/handleEnemyAction`). The skill should calculate the total damage over time (`target.maxHealth * damageRatio * stacks`) and set it as the `damagePerTurn` for the `damage_over_time` active effect.

### 2. `executeTriggerEffects(trigger, attacker, target, damage)` (Thorns/Reflect)

#### Required Changes:

- **Passive Reflect:** Under the "on\_get\_hit" trigger, iterate through the target's base passive abilities. If the passive type is **damage\_reflect\_passive**, calculate and add the reflected damage (`damage * effect.ratio`) to `reflectedDamage`.
- **Buff Reflect:** Check the target's active effects. If the effect type is **damage\_reflect\_buff**, calculate and add the reflected damage (`damage * effect.ratio`) to `reflectedDamage`.

### 3. tickPlayerEffects/tickEnemyEffects (DoT Amplify)

#### Required Changes:

- **DoT Amplify:** Within the Handle DOTs (End of Turn) block, check the currently ticking spirit/enemy's base passives. If the passive type is **dot\_damage\_boost** (i.e., dot\_amplification), multiply the calculated dotDamage by (1 + effect.value) before applying it (e.g., dotDamage = Math.floor(dotDamage \* 1.3)).

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## 2. Spirit Reworks for 4-Team Synergy (shared/data/spirits.json)

Common (C) and Uncommon (U) spirits are re-assigned skills and passives to enable the core synergy of each team. Rare (R) spirits are given new abilities to serve as powerful centerpieces/upgrades.

### 1a. Crit Damage Team (Setup ATK/Crit for High Damage)

Spirit	Rarity	Element	Role	Key Changes
Ember Fox	C03	Fire	Centerpiece	<b>Add Passive:</b> crit_mastery
Steel Mantis	C10	Metal	Setup	<b>Replace Skill:</b> hit_and_heal with crit_setup
Inferno Wolf	U03	Fire	Upgrade	<b>Add Passive:</b> crit_mastery
Cinder Cat	C18	Fire	Support	<i>None - keeps high ATK, attack_focus</i>

## 1b. Lifesteal Tank Team (Buff for Longevity and Lifesteal)

Spirit	Rarity	Element	Role	Key Changes
Mist Crane	C04	Water	Lifesteal Passive	<b>Add Passive:</b> healing_waters
Stone Carp	C02	Earth	Buff/Utility	<b>Replace Skill:</b> heavy_hit with bubble_barrier (DEF buff)
Emerald Tiger	U01	Wood	Upgrade/Sustain	<b>Add Passive:</b> healing_flames (Enables lifesteal on Fire damage) <b>Replace Skill:</b> hit_and_heal with lifesteal_buff
Jade Sparrow	C01	Wood	Sustain	<i>None - keeps health_focus and hit_and_heal</i>

## 1c. Thorns Damage Team (Reflect Damage on Hit)

Spirit	Rarity	Element	Role	Key Changes
Iron Beetle	C05	Metal	Centerpiece	Replace

				<b>Passive:</b> poison_thorns with damage_reflect <b>Replace Skill:</b> ancestral_healing with thorns_buff
Brook Turtle	C09	Water	Buff	<b>Replace Skill:</b> hit_and_heal with bubble_barrier (DEF buff)
Clay Guardian	C07	Earth	Support	<i>None - keeps  high DEF,  defense_focus</i>
Boulder Rhino	U07	Earth	Upgrade	<b>Add Passive:</b> damage_reflect <b>Replace Skill:</b> heavy_hit with thorns_buff

#### 1d. Poison/DOT Stack Team (Stack DOTs and Amplify Damage) 🐛

Spirit	Rarity	Element	Role	Key Changes
Willow Wisp	C11	Wood	Amplifier	<b>Replace Passive:</b> health_focus with dot_amplificati



				on <b>Replace Skill:</b> heavy_hit with def_shred_dot
<b>Sand Scorpion</b>	C12	Earth	<b>Poison App.</b>	<b>Replace Skill:</b> heavy_hit with def_shred_dot
<b>Flame Moth</b>	C08	Fire	<b>Support</b>	<i>None - keeps high elemental affinity</i>
<b>Riptide</b>	R09	Water	<b>Rare Upgrade</b>	<b>Add Passive:</b> dot_amplification <b>Replace Skill:</b> water_charge with def_shred_dot

### 3. Updated shared/data/spirits.json

The following JSON snippet reflects the necessary modifications (only modified entries shown):

JSON

```
{
  "common": [
    {
      "id": "spirit_c02",
      "name": "Stone Carp",
      "rarity": "common",
      "element": "earth",
```

```
    "lineage": "ox",
    "baseStats": { "attack": 100, "defense": 180, "health": 160, "elementalAffinity": 60 },
    "passiveAbilities": ["defense_focus"],
    "skills": ["basic_attack", "bubble_barrier", "hit_and_heal"]
  },
  {
    "id": "spirit_c03",
    "name": "Ember Fox",
    "rarity": "common",
    "element": "fire",
    "lineage": "serpent",
    "baseStats": { "attack": 160, "defense": 100, "health": 140, "elementalAffinity": 100 },
    "passiveAbilities": ["attack_focus", "crit_mastery"],
    "skills": ["basic_attack", "heavy_hit", "hit_and_heal"]
  },
  {
    "id": "spirit_c04",
    "name": "Mist Crane",
    "rarity": "common",
    "element": "water",
    "lineage": "horse",
    "baseStats": { "attack": 130, "defense": 120, "health": 150, "elementalAffinity": 100 },
    "passiveAbilities": ["health_focus", "healing_waters"],
    "skills": ["basic_attack", "heavy_hit", "water_charge"]
  },
  {
    "id": "spirit_c05",
    "name": "Iron Beetle",
    "rarity": "common",
    "element": "metal",
    "lineage": "ox",
    "baseStats": { "attack": 80, "defense": 180, "health": 140, "elementalAffinity": 100 },
    "passiveAbilities": ["damage_reflect", "defense_focus"],
    "skills": ["basic_attack", "thorns_buff"]
  },
  {
    "id": "spirit_c09",
    "name": "Brook Turtle",
    "rarity": "common",
    "element": "water",
    "lineage": "ox",
    "baseStats": { "attack": 90, "defense": 190, "health": 150, "elementalAffinity": 70 },
    "passiveAbilities": ["defense_focus"],
```

```
    "skills": ["basic_attack", "bubble_barrier", "hit_and_heal"],
    "triggeredAbilities": [
      {
        "trigger": "on_switch_in",
        "effects": [{ "type": "heal", "healthRatio": 0.3, "affinityRatio": 0.3 }]
      }
    ],
  },
  {
    "id": "spirit_c10",
    "name": "Steel Mantis",
    "rarity": "common",
    "element": "metal",
    "lineage": "serpent",
    "baseStats": { "attack": 170, "defense": 90, "health": 130, "elementalAffinity": 110 },
    "passiveAbilities": ["attack_focus"],
    "skills": ["basic_attack", "swap_atk_trap", "crit_setup"]
  },
  {
    "id": "spirit_c11",
    "name": "Willow Wisp",
    "rarity": "common",
    "element": "wood",
    "lineage": "serpent",
    "baseStats": { "attack": 130, "defense": 130, "health": 140, "elementalAffinity": 100 },
    "passiveAbilities": ["dot_amplification"],
    "skills": ["basic_attack", "def_shred_dot", "hit_and_heal"]
  },
  {
    "id": "spirit_c12",
    "name": "Sand Scorpion",
    "rarity": "common",
    "element": "earth",
    "lineage": "serpent",
    "baseStats": { "attack": 140, "defense": 130, "health": 130, "elementalAffinity": 100 },
    "passiveAbilities": ["poison_thorns"],
    "skills": ["basic_attack", "def_shred_dot", "heavy_hit"]
  }
],
"uncommon": [
  {
    "id": "spirit_u01",
    "name": "Emerald Tiger",
```

```
    "rarity": "uncommon",
    "element": "wood",
    "lineage": "tiger",
    "baseStats": { "attack": 160, "defense": 150, "health": 200, "elementalAffinity": 90 },
    "passiveAbilities": ["attack_focus", "healing_flames"],
    "skills": ["basic_attack", "heavy_hit", "lifesteal_buff"]
  },
  {
    "id": "spirit_u03",
    "name": "Inferno Wolf",
    "rarity": "uncommon",
    "element": "fire",
    "lineage": "tiger",
    "baseStats": { "attack": 200, "defense": 120, "health": 170, "elementalAffinity": 110 },
    "passiveAbilities": ["attack_focus", "crit_mastery"],
    "skills": ["basic_attack", "heavy_hit", "crit_setup"]
  },
  {
    "id": "spirit_u07",
    "name": "Boulder Rhino",
    "rarity": "uncommon",
    "element": "earth",
    "lineage": "ox",
    "baseStats": { "attack": 150, "defense": 210, "health": 180, "elementalAffinity": 60 },
    "passiveAbilities": ["defense_focus", "damage_reflect"],
    "skills": ["basic_attack", "thorns_buff", "bubble_barrier"]
  }
],
"rare": [
  {
    "id": "spirit_r09",
    "name": "Riptide",
    "rarity": "rare",
    "element": "water",
    "lineage": "serpent",
    "baseStats": { "attack": 210, "defense": 160, "health": 210, "elementalAffinity": 120 },
    "passiveAbilities": ["health_focus", "dot_amplification"],
    "skills": ["bubble_barrier", "tidal_surge", "def_shred_dot"]
  }
]
}
```