

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 $(1 + \text{effect.value})$ before applying it (e.g., `dotDamage = Math.floor(dotDamage * 1.3)`).
-

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 | Add Passive: <code>crit_mastery</code> |
| Steel Mantis | C10 | Metal | Setup | Replace Skill: <code>hit_and_heal</code> with <code>crit_setup</code> |
| Inferno Wolf | U03 | Fire | Upgrade | Add Passive: <code>crit_mastery</code> |
| 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 | Add Passive: healing_waters |
| Stone Carp | C02 | Earth | Buff/Utility | Replace Skill: heavy_hit with bubble_barrier (DEF buff) |
| Emerald Tiger | U01 | Wood | Upgrade/Sustain | Add Passive: healing_flames (Enables lifesteal on Fire damage) Replace Skill: 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 |

| | | | | |
|----------------------|-----|-------|----------------|---|
| | | | | Passive: poison_thorns with damage_reflect Replace Skill: ancestral_healing with thorns_buff |
| Brook Turtle | C09 | Water | Buff | Replace Skill: 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 | Add Passive: damage_reflect Replace Skill: 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 | Replace Passive: health_focus with dot_amplificati |

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