UBISOFT

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UI PROGRAMMER

TEST ASSIGNMENT

OBJECTIVES

UI PROGRAMMER TEST ASSIGNMENT

1. Test ability to read and understand Game Design Spec documentation

2. Test ability to integrate and implement screen flows and wireframes based on designed UI/UX in a working Unity prototype

TEST BRIEFING

RESTRICTED PROJECT / SERVICE

level
3

This document is for (specific groups and/or individuals and their management). Audience must be specified in the document.

4

BRIEFING

UI PROGRAMMER TEST ASSIGNMENT

PROJECT: Battle Game

OBJECTIVE: We need to integrate User Interface mockups for HOME SCREEN of the RESEARCH FEATURE. The Game Design specs can be found in this presentation appendix.

CHALLENGES: We need to be able to tell our project team how the UI of the HOME SCREEN of the RESEARCH FEATURE would behave and how its Unity hierarchy would be like. Make sure the structure fits with the design specs.

RESOURCES: You will find all the assets and wireframes attached with this assignment for you to create the Unity Project , UI hierarchy and your project.

BUDGET: this task needs to be delivered in 7 days.

DELIVERABLES

DELIVERABLES

UI PROGRAMMER TEST ASSIGNMENT

A document/presentation showcasing the following. Try to walk your team through your thought process.

1. **UNITY PROJECT:** Sample project with a working scene/prefab of the RESEARCH HOME SCREEN UI. Needs to contain the structure implemented.

TECHNICAL REQUIREMENTS

RESTRICTED PROJECT / SERVICE

level 3

8

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TECHINICAL REQUIREMENTS

UI PROGRAMMER TEST ASSIGNMENT

1. **UI RESOLUTION:** iPhone X resolution (2436x1125) – Landscape.

2. **UNITY PROJECT VERSION:** Unity 2019.

RESEARCH

GAME DESIGN DOC

| FUNCTION & INTENT

BASIC FUNCTIONS

1. Sink excess Soulstones from the splicing system
2. Enhance stats of various features such as beasts, towers, and base management
3. Provide minor customization/investment outlet by allowing players to specialize at key points
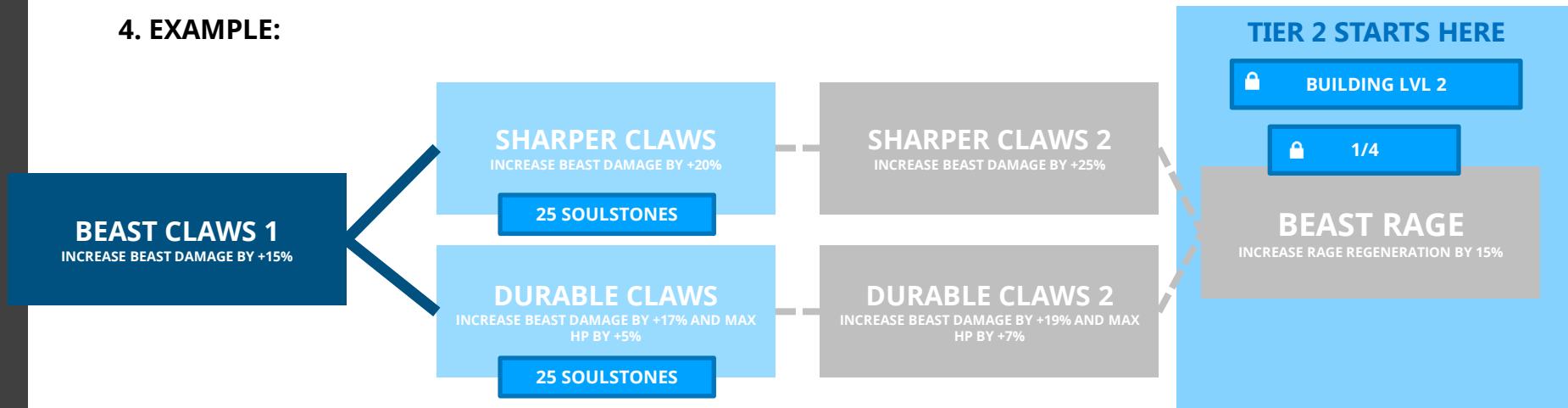
BEHAVIOR LOOKED FOR

1. Players trying specialize in certain aspects of the game by taking specific paths through research or making critical/binary choices at key research "gates"
2. Players enjoying the acquisition of "excess" Soulstones because they *want* to achieve key research goals
3. Players finding the best splice pairs to gain Soulstones within each tier.

| RULES

1. **Research is divided into tiers.**

2. **Each tier of research is tied to a level of the research building. A tier is unlocked when a level of the research building is unlocked.**

3. **RESEARCH CONDITIONS - For research to be started the following conditions must be met:**
   - **Tier must be unlocked**
   - **At least one of the parent research items (if any) must be unlocked.**
   - **Enough research currency**
   - **Maximum number of research items in progress is not met.**

4. **EXAMPLE:**

TIER 2 STARTS HERE

🔒 **BUILDING LVL 2**

🔒 **1/4**

SHARPER CLAWS
INCREASE BEAST DAMAGE BY +20%

25 SOULSTONES

SHARPER CLAWS 2
INCREASE BEAST DAMAGE BY +25%

BEAST CLAWS 1
INCREASE BEAST DAMAGE BY +15%

BEAST RAGE
INCREASE RAGE REGENERATION BY 15%

DURABLE CLAWS
INCREASE BEAST DAMAGE BY +17% AND MAX HP BY +5%

25 SOULSTONES

DURABLE CLAWS 2
INCREASE BEAST DAMAGE BY +19% AND MAX HP BY +7%

| WHAT RESEARCH TOUCHES

Research enhancements can touch all of the following:

1. **Beast stats**
   - **Health**
   - **Resistance to tower types increase**
   - **Damage**
   - **Spell stats**
     - **Duration**
     - **strength**
   - **XP gain**
   - **Heal speed**
   - **Summon speed**
   - **Starting mana increased**
   - **Stamina increased (for rogue)**
   - **Added behavior to basic attacks (ex. Percent chance to stun).**
   - **Added behavior to spells (ex. Healing while cloaked)**
   - **Debuffs to tower attacks**

2. **Tower stats**
   - **Health**
   - **Damage**
   - **Attack speed**
   - **Increase mana stolen**
   - **Behavior-specific mods (ex. more lightning bounces)**
   - **Enhancements based on conditions (ex. Breaking a beast shield when a supershot of a particular tower is fired).**

3. **Base management stats**
   - **Construction/upgrade speed**
   - **Resource generation**
   - **Resource protection**
   - **Generator capacity**

4. **Defense**
   - **Supershots increased in number**

5. **Research itself**
   - **Research speed increase**

| RESEARCH ITEM CONFIG

researchName
researchTier
researchIcon
researchTime
researchCost
    amount
enhancement
dependency (parent research item(s))

This should be enough to map the whole structure of the tree.

| RESEARCH CONFIG

maxResearchDefault
additionalResearchElite

| RESEARCH ITEM STATES

1. Researched
2. Item needs completion
3. Available
4. Locked

DETAILS OF SELECTED RESEARCH ITEM
1. Name of research item
2. Icon of research item
3. Tier of research item
4. Enhancement(s) gained from researching this item
5. Inspiration choice available (if any)
6. Time to complete research
7. Cost (in soulstones)
8. Button to start research

RESEARCH TREE
1. State of each research item (locked, available, research needs completion, already researched)
2. Branch dependency of each item (the tree structure)
3. The tier of each section of research
   - If a tier is locked it would be better to show that whole tier as locked rather than (just) individual items as locked. It would show a difference between the whole tier being locked versus an individual item being locked because of other conditions.

RESEARCH NODES | SPECS

research ID	branch	tier	category	type	constraint	localized name
research_beast_T01_increase_health_beast_all	beast	T01	regular	increase_health	beast_all	Richer Essence
research_beast_T01_increase_resistence_towers_razor	beast	T01	regular	increase_resistence	towers_razor	Boost Razor Resisance
research_beast_T01_increase_health_beast_tank	beast	T01	regular	increase_health	beast_tank	Chainmail
research_beast_T01_increase_duration_spell_invisibility	beast	T01	regular	increase_duration	spell_invisibility	All Cloak No Dagger
research_beast_T02_increase_damage_beast_rogue	beast	T02	regular	increase_damage	beast_rogue	Haala's War Cry
research_beast_T02_increase_strength_spell_rage	beast	T02	regular	increase_strength	spell_rage	Slern's Mark
research_beast_T02_increase_heal_speed_beasts_all	beast	T02	regular	increase_heal_speed	beasts_all	Mystic Salve
research_beast_T02_increase_strength_spell_firestorm	beast	T02	regular	increase_strength	spell_firestorm	Ashes
research_beast_T03_increase_xpgain_beast_all	beast	T03	regular	increase_xpgain	beast_all	Divine Inspiration
research_beast_T03_increase_mana_atstart_beast_all	beast	T03	regular	increase_mana_atstart	beast_all	Gaia's Blessing
research_beast_T03_increase_stamina_beast_rogue	beast	T03	regular	increase_stamina	beast_rogue	Haala's Rage
research_beast_T03_increase_health_beast_all	beast	T03	regular	increase_health	beast_all	Powerful Essence
research_management_T01_increase_production_generators_all	management	T01	regular	increase_production	generators_all	Machinary
research_management_T01_increase_health_generators_all	management	T01	regular	increase_health	generators_all	Strength of Industry
research_management_T01_increase_construction_speed_	management	T01	regular	increase_construction_speed		Anvil I
research_management_T01_increase_production_generators_all	management	T01	regular	increase_production	generators_all	
research_management_T02_increase_production_generators_all	management	T02	regular	increase_production	generators_all	Machinary II
research_management_T02_increase_protected_generators_mine	management	T02	regular	increase_protected	generators_mine	Protect Gold
research_management_T02_increase_protected_generators_well	management	T02	regular	increase_protected	generators_well	Protect Essence
research_management_T02_increase_summon_speed_gate	management	T02	regular	increase_summon_speed	gate	Tuned Gate
research_management_T02_increase_construction_speed_	management	T02	regular	increase_construction_speed		Anvil II: Advanced
research_management_T02_increase_research_speed_	management	T02	regular	increase_research_speed		Codex
research_management_T03_increase_resource_capacity_generators_mine	management	T03	regular	increase_resource_capacity	generators_mine	Organization
research_management_T03_increase_research_speed_	management	T03	regular	increase_research_speed		Cypher
research_management_T03_increase_health_generators_all	management	T03	regular	increase_health	generators_all	Strength of Industry II
research_management_T03_increase_production_generators_all	management	T03	regular	increase_production	generators_all	Machinary III
research_defense_T01_increase_health_tower_razor_dragon	defense	T01	regular	increase_health	tower_razor_dragon	Armor Plating
research_defense_T01_increase_damage_tower_razor_dragon	defense	T01	regular	increase_damage	tower_razor_dragon	Essence Focus
research_defense_T01_increase_megashot_count_defense	defense	T01	regular	increase_megashot_count	defense	Rally Defenses
research_defense_T02_increase_megashot_count_defense	defense	T02	regular	increase_megashot_count	defense	Rally Defenses II
research_defense_T02_increase_megashot_strength_tower_heal	defense	T02	regular	increase_megashot_strength	tower_heal	Binding Force
research_defense_T02_increase_health_tower_all	defense	T02	regular	increase_health	tower_all	Infused Ore
research_defense_T02_increase_megashot_strength_tower_razor_dragon	defense	T02	regular	increase_megashot_strength	tower_razor_dragon	Dragon Megashot
research_defense_T02_increase_health_tower_static	defense	T02	regular	increase_health	tower_static	Static Health
research_defense_T03_increase_megashot_strength_tower_static	defense	T03	regular	increase_megashot_strength	tower_static	Static Megashot
research_defense_T03_increase_attackspeed_tower_razor	defense	T03	regular	increase_attackspeed	tower_razor	Improved Mechanism
research_defense_T03_increase_damage_tower_all	defense	T03	regular	increase_damage	tower_all	Essence Focus II

THANK YOU