

Lutemon! Project overview

Group Number:

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Introduction

Lutemon is a game application similar to Pokémon which can support many functions such as Lutemon Creation, training, fight, warehouse management and data statistics functions. Users can create different colors Lutemon, enhancing its attrivuts and skills through training and fighting, and achieve strategic growth and management.

Implement Features

1. Lutemon Creation System

Support to choose name and colour(e.g. WHITE, GREEN, BLACK etc.) and creat new Lutemon.

Each Lutemon has their own basic attributes(e.g. (Attack, Defense, Health, Level) and unique skills.

Create page aesthetics optimization, support skill description parsing and card preview.

2. Home System

Disply all Lutemon cards which in REST state.

Support moving Lutemon to Storage or joining fighting.

Top menu integrates multiple page jump entry points (Lutemon List, Details, Statistics, Log Out) 。

The bottom navigation adopts an icon+text layout with a unified style.

3. Training System

Different training time according to training type such as attack(40 seconds), defense(60 seconds), skill(90 seconds).

Implement training progress bars, countdown animations, and cancel training operations.

Limitation rules: continuous training of attack/defense up to two times, skill training without cooldown.

Up to three Lutemons can be trained simultaneously, and the page can be switched during training.

Skill training has an upgrade system that allows for retraining only after each battle.

4. Fighting System

Implement turn based combat logic and support switching between manual and AI automatic modes.

Skills have effects(e.g. increasing damage, healing, blocking skills, etc.) and cooling/sustained turn mechanisms.

Update the state of skill in each turn with icon displayed in real-time

Victory can get exp while failure does not result in death but clears experience.

Exp system support upgrading attributes and skills, and attribute growth has randomness.

Battle log records and displays the last three battles, supporting mode icon differentiation.

5. Storage System

Display Lutemon which is moved from home page.

Support search Lutemons who in the storage and can show Lutemon details.

6. Statistic System

Basic information page and fighting data page.

Use MPAndroidChart to display the number of fighting, Winning rate and other data charts.

7. Lutemon Details System

Display complete information cards for five initial Lutemons.

If jumping from the Storage page, only the detailed card of the selected Lutemon will be displayed.

AI statement

We use AI to create Lutemon picture and background, they all come from AI creating by our requires. So our product will be not issue related to the patent of pictures involved. In other ways, we learn some high technology knowledge from AI, such as how to use navigation components and some components we need use but didn't learn in the course. We also use AI to help us debug the code in the program.

Project characteristics

1. Unified global state management: Use singleton Repository and VNet to manage Lutemon data and achieve cross page sharing.
2. User friendly interface: Use RecyclerView+custom Adapter to implement card view; Unified button layout and clear logic for menu pop ups.
3. Clear module structure: The project is divided into four major modules: core (data model), UI (interface), viewmodel (logic), and UTIs (auxiliary class).
4. Rich animations and feedback: including training progress bar animations, combat skill prompts, training success pop ups, etc.
5. Rigorous training and combat system: Clear constraints, state control, and visual feedback ensure clear and smooth user operation.
6. Strong scalability: Supports the addition of new skills, new types of Lutemon, more chart displays, combat AI strategies, and other functions in the future.