Doggochain — A doggo game blockchain

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1 Idea

The Doggochain project is a game in which players may own and pet monsters, which will have their own *stats* (values that characterize monsters with respect to their strength or vitality, for example), and interact with wild and other players' monsters, including collect, pet, feed, train and even trade.

2 Motivation

This idea was inspired by two games. One of them is CryptoKitties, an online game where you can buy and sell digital cats using ethereum, and breed them to create new cats. The game however is very simple and lacks much excitement other than the idea of obtaining rare combinations.

The other game is Pokémon, a largely succesful game about capturing, training, breeding, and battling with pet-like monsters that aid the player in their adventures.

By combining the two ideas, this project aims to create a blockchain-based RPG where the player is able to capture, train, and compete with their monsters, but also trade with other players, be it exchanges of monsters for other monsters, or for cryptocurrency.

3 Justification

Since our group was looking for some ludic, non-currency related blockchain-based smart contract system, we decided then to create a more featureful monster game focusing in being an actual game with richer features.

The use of Blockchain and Smart Contracts, aside being previously required for this project, are technologies currently being explored, but most usages aims for currency and just a few aims for games, leaving room for this work to explore and later report its results.

In the case of our game, it would allow to estabilish real ownership over your monsters, allowing you to buy, sell, and directly trade with other players. Each

monster will have it's own randomly generated base attributes. By breeding them with other compatible monsters, it is possible to pass good attributes over to the next generation, thus increasing the potential power of the monster, and it's market value.

4 Requirements

4.1 Functional

The system must:

1. Allow users to register themselves as players;

2. Allow players to find, catch and own a monster;

3. Allow players to trade monsters between themselves if they aggree so;

4. Allow players to train and evolve their monsters;

5. Allow players to challenge each other with their monsters;

6. Allow players to bet on which monster will win in a challenge.

7. Allow players to set their monsters to friendly defeat wild monsters for experience points;

8. Allow players to breed their monsters in order to *mine* for new (and hopefully better) monsters;

9. Allow users to know a monster's stats;

4.2 Non-functional

1. Monsters will evolve (increase their stats) once they reach a certain value of experience points (which will also increase upon evolving);

2. Challenges' results must sound fair (according to later decided criteria from this project's authors);

3. Trading must be done with monster (and/or money) for monster (and/or money), obligatory having one monster as an offer or as a request.