# CryptoKitties - Product Requirements

Version 1.0

## Version Control

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| **Version #** | **Date** | **Authorization** | **Responsibility (Author)** | **Description** |
| **1.0** | **Jan2018** | **Responsible** | **Rohail Khan** | Created initial doc. |

## Overview

This document will outline product requirements for building a game on the NEO blockchain called CryptoKitties. The idea behind this game traces back to the success of online collectible games such as NeoPets, Pokemon and eventually CryptoKitties on the Ethereum platform. The game would be based on the sale, purchase and trade of collectibile digital cats called ‘CryptoKitties’, with the elements of scarcity and uniqueness the driving factors behind the game. The ownership of CryptoKitties will be tracked on the blockchain.

Building CryptoKitties on the NEO platform has several key advantages over its counterpart, Ethereum:

1. Faster transaction processing time: NEO can handle 10,000 transactions/second compared to Ethereums 15/second. This will be key with the widespread adoption of CryptoKitties
2. Better access to Chinese markets: NEO is backed by the Chinese government which removes the language barrier and shelters it from being a target of any future regulatory hurdles
3. NEO is quantum computer-proof: Although unlikely, a quantum computer attack is a possibility in the blockchain space especially when potentially huge sums of money are involved
4. CryptoKitties can be written and compiled in C# and Java making it easier to find the required talent to scale and improve the product in the future

## Release Criteria

The following steps should be completed before the product is released:

* User base and Competitor analysis
* Business Requirements/Product Requirements (BR/PR) Document
* Functional Specifications (screenshots/UI)
* Development in ‘Dev.’ Environment
* Code released in multiple builds to QA environment
* QA testing
* Fix QA test issues
* UAT testing with trial to a sample user base
* Fix any new found bugs
* Release in Product environment
* Provide active support for training/troubleshooting

## Stakeholders

### External stakeholders

|  |  |
| --- | --- |
| **Party** | **General Impact on Project** |
| End User | End users are regular computer users with some familiarity with online games |

### Internal stakeholders

|  |  |
| --- | --- |
| **Role** | **General Impact on Project** |
| Product Management/ Business Analyst | Requirements gathering and high-level BRD. Analysis and detailed functional specs |
| Development (internal & external) | Front to back architecture and development |
| QA | In-depth testing and fixing bugs in conjunction with Developers |
| Infrastructure | NEO blockchain with nodes |

## Business Requirements

Login

| **Reference** | **Description** | **Priority** |
| --- | --- | --- |
| CK1 | Login page that allows users to enter a NEO wallet address, an email ID and a nickname.  3 plain text fields that allow alphanumerica characters to be entered. | MUST |

My Kitties, Marketplace tab

|  |  |  |
| --- | --- | --- |
| **Reference** | **Description** | **Priority** |
| CK2 | Top bar that allows three different tabs ‘My Kitties’, ‘Marketplace’ and ‘Invite.  ‘My Kitties’ to show any purchased collectibles. ‘Marketplace’ to host all kitties for sale, including any Gen0 kitties pushed to the NEO network. “Invite’ tab to give a list of 3 fields to enter email IDs of contacts that an invite link should be sent to. | MUST |
| CK3 | Ownership of Kitties to be stored on the blockchain  Show ownership at all times, prevent sale/trade of Kitties, without completion of the consensus mechanism | MUST |
| CK4 | Add Filters on ‘Marketplace’ and ‘My Kitties’ tabs to filter out for Youngest first, Oldest first, Cheapest first, Most expensive first, Most likes  Reset filters button available. Text to show no items if no items match the filter criteria | MUST |
| CK5 | Name, Price, Generation of every Kitty to show on the Kitty icon  Price in NEO. Name field is Alpha numeric. Generation would be shortened to ‘Gen’ with a number added after (so ‘Gen0’ to show generation 0). No more than three kitty icons in each row. | MUST |

Kitty Profile

| **Reference** | **Description** | **Priority** |
| --- | --- | --- |
| CK6 | Kitty picture, Name, Generation, Cooldown period, Cat Bio, Cat attributes (Cattributes) and ‘Like’ and ‘Buy Now’ buttons to be shown on page  Cattributes shown as clickable filter icons. Tool tip to be shown for cooldown period. | MUST |
| CK7 | Payment mechanism to allow payments to be made and received when ‘Buy Now’ is clicked upon  Link to Coinbase embedded on payments page with relevant error messages | MUST |