**Land Title Registration Software Requirements Specification.**

### Business Background.

Land Title Registration is often a cumbersome and inefficient process. There are often difficulties surrounding buying and selling of land, especially in developing countries. As well, there are issues of fraudulent seizing of land by forging land title documents. Another problem is the ability to show proof of paid stamp duties on all land transactions.

## Technical Specification.

The project team will design and implement a land title registration application that will allow a user to create land titles as an NFT as well as issue a stamp duty which will also be an NFT that will be attached to the land title. The project must be able to create land titles as well as query information about a given title.

### Land Title Attributes:

Each Land Title NFT should have the following attributes.

1. Secure Hash of the Land Title as a unique ID.

2. Coordinates.

3. Owners of Record

4. Owners.

5. Proportion of ownership.

6. Mortgage issuer (single issuer)

7. Assessed land value

8. Assessed Taxes

9. Token indicating stamp duty paid.

Each Stamp Duty NFT should have the following attributes.

1. Assessed Stamp Duty value

2. Land owner.

3. Assessed land value

4. Duty paid.

### Functional Requirements.

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| **Requirement ID** | **Requirement Specification** |
| MFR-1 | Create a decentralized Land Title registry on the Ethereum blockchain |
| MFR-1.1 | Two roles will be created. The administrator and the land owner. |
| MFR-1l2 | Administrators must be able to register owners. |
| MFR-1.2 | Owners must be able to register their land deeds on the blockchain using NFT’s. |
| MFR-1.3 | Owners and administrators must be able to query the registry. |
| MFR-1.4 | Owners must be able to sell their land titles to each other. Note that owners will not be permitted to complete their transactions unless a certified stamp duty is issued. |
| MFR-1.5 | Buyers must be able to pay stamp duty with ether. Once the stamp duty is paid, the land title NFT will be transferred to the new owner along with the stamp duty NFT. |
| MFR-1.6 | A simple web front end with JavaScript and the web3.js library should be created to facilitate the application. |

### Technologies used:

1. Solidity programming language

2. JavaScript + web3.js library.

3. Ethereum Blockchain.