

Externas

Incentives and Ideas to extending lease,

1. An application or interface where user is asked about the estimated months of stay in the new place.
2. Increase percent of rent according to market trend, where our application suggests a competitive increase in rent taking other tenants as data points.
3. Competitive localised prices for services.
4. Ensure the tenant stays long by asking questions on compatibility and likability as neighbours given what each of them look for in their neighbours and weightage to those characteristics.
5. Periodic feedback from both tenants and owners can promote their bond. Regarding upgrades, opinions about apartment.
6. Use Smart Contracts reducing brokerage fees. All users can create an etheral account and are allowed to be a part of smart contract.
7. We enforce Smart Contracts help establish protocols that if not met, immediately dissolve a contract.
8. IOT and block chain for community real estate

Research Based for Smart Contracts in Real estate Smart Contracts.
High Commission in New York City:

A broker's fee is, essentially, a commission: Real estate agents who connect landlords and prospective tenants have, historically, then charged those renters anywhere from 12 to 15 percent of one year's rent. It's akin to a finder's fee, and it's often the main source of income for brokers.

Why do broker fee's exist:

Before the internet and smartphones, landlords and brokers were the gatekeepers to available units and had to hustle to list apartments in an array of publications, answer calls, arrange tours and handle all the necessary paperwork. It was a major investment of time and effort so brokers received a commission in the form of a one-time fee.

Challenges to encounter:

- Identity verification of tenant
- Proof of Income of tenant
- Assurance of monthly rent payment by tenant

How Real estate firm's verify proof of income.

A) Private Employee

- Proof by income letter.
- Wage and Tax Statement W2
- Previous year tax return (1040)
- Bank Statements
- Pension Distribution Statement

- Social Security Proof of income
- Court Ordered Agreements
- Annuity Statement
- Interest and Dividend Income
- Severance Statement

B) Self Employed

- Tax form 1099
- Bank Statements

C) Unemployed

- Guarantor

Rent-to-Income Ratio:

- Usually we can ask tenant to have around 30% of income as rent, but in New York City the percentage can go as high as 70% sometimes depending on location.

Case Studies:

RealT [Florida]

- RealT is a fractional real estate investment platform that allows investors around the world to invest in the US real estate market through a fully-compliant, token-based blockchain network. The platform allows investors to buy into tokenised properties with permission-less Ethereum and maintain access to cash flows and low maintenance ownership via RealTokens, allowing owners to access rent payments weekly through US-Dollar stable coin, xDai or Ethereum.

PropertyClub [Newyork]

- PropertyClub is a real estate platform that uses blockchain to refine the way people market, search for, buy, sell and invest in properties. Using smart contracts, the company conducts real estate transactions digitally using cryptocurrencies like Bitcoin or its own PropertyClub Coin (PCC).

SMARTReality [Seattle]

- SMARTReality uses smart real estate contracts to enact and maintain property purchase and rental agreements. Whether it's paying rent, establishing mortgages or purchasing a home, the company's smart contracts help to establish protocols that, if not met, immediately dissolve a contract.

Bitland [Ghana based Startup]

- Ghana uses largely informal land distribution processes. People inherit land from extended family, through membership of a certain clan or through traditional authority. These landowners do not typically keep written documentation of land transactions and ownership. Therefore, tracking proper ownership of land becomes difficult. A lack of adequate formal documentation of land ownership and previous transactions creates an

informal land market which in turn creates land conflict, lawsuits and multiple ownership claims of a plot of land.

- It leverages block chain technology, Which can create tamper-proof digital public records—to help people prove their land belongs to them. Bitland, which eventually plans to take fees from governments and a slice of transactions made through its platform, now operates in seven African nations plus India
- Link : <https://time.com/collection/genius-companies-2018/5412105/bitland/>

Smart Contract:

- These are self executing applications running on decentralised networks, this automation removes the administrative overhead by predefined programming rules and conditions.
- Smart contract ledger runs on an immutable ledger within a decentralised network, which can only be modified by consensus.
- Two parties can participate in a transaction governed by impartial third parties.
- Complete transparency which is primary property of blockchain.

Our Solution Abstract:

- We plan to implement our smart contract on ethereum, where we charge the transaction fee and pay it to the miners who verify the transaction.
- We tokenise the asset and the rules governing that asset, its attributes and ownership.
- Assets value can also be fragmented into different shares, ownership can be assigned to these shares.
- Non fungible tokens can be used here as they are unique hash values to represent digital entities.
- Smart contracts will connect owners and tenants more directly, tokenising a property enables digital exchange where tenants can lease a property when conditions are met.
- Our solution can function as a listing agent, payment broker and legal documenter. This makes the entire process more lucid and placing the power in the hands of owner and tenant to setup terms and conditions of the transaction.

Solution Design:

Introduction:

Real estate transaction are quite complicated and burdensome, a lease agreement is rarely understood completely by both parties. Also landlords try to find ideal tenant with who they have monthly payments promptly and tenant usually have trouble recovering the safety deposit. We propose to allow tenants and owners to complete, record and enforce real estate transaction using smart contracts. We plan to eliminate myriad 3rd party

supervision which results in reduced transaction cost, fraud and legal disputes.

Market Situation:

- Of all united states residential and commercial real estate around 72% is owner occupied and 28% is rented out to tenants. The number of renters and landlords is increasing, with approximately 2,654 new renters and 544 new landlords added per day, on average.
- Single family residence has increased tremendously over the past years.
- Which means we have 1/3 of adult population is involved in at least one real estate contract.

Our Solution:

- To Design a platform for landlords to advertise their rental units to tenants with smart contracts governing transactions.
- Both parties agree using smart contract, also agree to the terms of their agreement which generally includes dates of payment, length of agreement and penalty in case of violation in agreed forms.
- The Smart contract manages the relationship between owner and tenant. Payment could be made using ETH, USD, BTC etc. Smart contracts are also preprogrammed to automatically serve notice in an event of breach.
- Once everything is setup it is deployed and added in the distributed ledger of ethereum, where miners are incentivised to verify the block hash, once its proved legit. The Smart contract applies when its triggered and transaction is executed.
- Also smart contract can be renewed and new terms can be negotiated voiding the old contract and publishing a new contract in the system.

Sources:

<https://www.rentalprotectionagency.com>