

Auto Generated Agreement Based House Rental System

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Abstract: *The housing rental market faces several challenges, including numerous landlords, arbitrary charges, and false rental information, making it difficult for the government to monitor and regulate the rental situation effectively. To address these issues, this project proposes the creation of a housing leasing alliance chain using blockchain technology based on encryption algorithms. In this system, landlords and tenants sign lease agreements through smart contracts, which establish the lease relationship, automate the regular payment and collection of rent, and return rental rights when due. The alliance chain network incorporates certification department nodes and record management nodes to verify the authenticity of property listings and personal identity information, back up lease contract information, register housing rental situations, and ensure safe leasing practices. This method eliminates the need for intermediaries, reduces costs, and provides clear housing rental information, benefiting government market supervision. The client application system is designed for the public rental market. Landlords can register, log in, and post available rental information, while tenants can search for matching housing resources based on their needs and send requests to the alliance chain network once they have expressed interest. The alliance chain network is responsible for recording transaction information, authenticating property listings and personal identity information, and maintaining on-chain records of leasing situations. The blockchain repository is tamper-proof and traceable, aiding in the resolution of disputes related to housing leases, such as accommodation issues and lease priorities. The Home Rental System is particularly advantageous for property owners as it saves time by only connecting them with eligible tenants, eliminating the need for verbal explanations of room details. It is best suited for urban areas, allowing customers to easily search for suitable properties based on their budget and occupancy limits.*

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