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Case Study: Streamlining Real Estate Transactions with Smart Contract

Introduction:

Real estate purchases in Barcelona's busy city have long been linked to complex, drawn-out procedures that need for a lot of paperwork and multiple middlemen. A creative firm called CasaTech came on the market with the goal of utilising smart contracts and blockchain technology to completely transform the real estate industry. By automating contracts and guaranteeing transparency and security, their platform aimed to streamline the process of purchasing and selling real estate. This case study explores how CasaTech revolutionised the way real estate transactions were conducted in Barcelona, the advantages that users of their smart contract system enjoyed, the difficulties they encountered along the road, and possible solutions.

- 1. Barcelona's Conventional Real Estate Transaction Process is Being Transformed:

 The platform developed by CasaTech significantly changed the way that real estate deals were made in Barcelona. Conventionally, the process involved numerous intermediaries, including banks, notaries, and real estate agents, resulting in prolonged and cumbersome procedures.

 CasaTech aimed to streamline this process by leveraging blockchain technology and smart contracts. Here's how they changed the landscape:
 - Digital Contracts: In digital contracts, buyers and sellers had to include predetermined terms. The parameters of the transaction, including the agreed-upon purchase price, the ownership transfer, and other pertinent information, were covered by these conditions.
 - Automation: The smart contract would automatically run as soon as the parties involved
 fulfilled the specified requirements. For instance, the ownership documents would be
 delivered to the buyer automatically once they verified the transfer of monies to a secure

- digital account. This removed the requirement for middlemen to manually verify information.
- Removal of Intermediaries: Removing banks, notaries, and other intermediaries from the process was the biggest change. CasaTech sought to develop a peer-to-peer transaction system that was both direct and safe through the use of smart contracts and blockchain technology.
- 2. Advantages of Real Estate Transactions with CasaTech's Smart Contract System:
 - Real estate has benefited greatly from smart contracts, which have made it possible for properties to be digitally transferred from one internet user to another while maintaining asset safety and security. It is also very difficult for outsiders or hackers to manipulate the message or hack it. Anyone can purchase or sell real estate assets and sign all legal documents directly from their screens, and blockchain technology may play a significant role in the real estate industry (Saleh and Darwish, 2017). When it came to the real estate purchase process, users of CasaTech's smart contract system reaped several enticing benefits:
 - Productivity: The transaction procedure was considerably accelerated by the platform.
 Contracts performed smoothly after all requirements were satisfied, doing away with the need for laborious manual verification and documentation. Deals that used to take weeks or months to complete now only take a few days.
 - Decreased Costs: Both buyers and sellers experienced significant cost reductions as a
 result of the elimination of middlemen like banks and notaries. The total transaction
 expenses were decreased by doing away with their fees and commissions.

- Transparency: An unchangeable and transparent ledger of all transactions was made
 possible by blockchain technology. Because of this openness, there were less arguments
 and more mutual trust between the parties.
- Security: By using tamper-proof smart contracts, security was improved. The possibility
 of fraud or manipulation was reduced, and the parties could be sure that the provisions of
 the contract would be carried out as agreed.
- Streamlined Procedures: With digital contracts that walk users through each step, the platform's intuitive interface makes it simpler for people to understand and manage the real estate transaction process.

3. Difficulties and Adaptations

Notwithstanding its achievements, CasaTech encountered difficulties when putting its smart contract technology into practise. Among these concerns were:

- Data Accuracy: Inaccurate data inputs resulted in issues with a few transactions. For
 example, a buyer submitting an incorrect amount could have prematurely triggered the
 smart contract, leading to short-term issues.
 - Mitigation: Stricter data verification procedures and user-friendly interfaces can be put in place to assist avert these kinds of problems. Requiring multiple levels of confirmation and possibly implementing a review period before contract execution can offer a safety net for inaccurate data inputs.
- Regulatory Compliance: Real estate transactions often involve legal and regulatory complexities. Ensuring that the smart contract system complies with all relevant laws and regulations is crucial.

Mitigation: CasaTech should collaborate with legal experts to ensure that their system complies with all real estate regulations in Barcelona. Regular audits and updates to the platform to adapt to changing laws can further mitigate regulatory challenges.

 Education and Adoption: The success of CasaTech's platform relies on users' understanding and willingness to adopt this new approach.

Mitigation: CasaTech can invest in comprehensive user education and training programs to help users navigate the platform effectively. Building trust within the community and establishing a strong customer support system can encourage adoption.

Conclusion:

The CasaTech platform has effectively revolutionised the conventional real estate transaction process in Barcelona, providing users with a host of advantages such as increased efficiency, lower expenses, transparency, and security. Even if there are obstacles to overcome, these problems can be lessened with better data verification, regulatory compliance, and user education. CasaTech has the ability to completely transform and expedite laborious, complex real estate procedures with its creative application of blockchain technology and smart contracts.

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