Prompt for Blockchain Competition:

Welcome to SOFTEC 23's Blockchain Development Competition!

The real estate industry faces several challenges, such as the lack of transparency, high transaction costs, fraud, and the need for intermediaries, among others. Your task is to provide a smart contract-based solution that addresses the challenges faced by the real estate industry and improves the efficiency, security, and trustworthiness of property transactions.

For this competition, you are required to create a smart contract that implements some standard operations required for a transparent and secure property system. Property ownership and lease is a widely popular activity that requires complete transparency and trust, and blockchain technology provides these features with the help of smart contracts.

To help you get started, you will be provided with an "IProperty" interface. **You MUST implement this interface** as per the instructions given, and ensure that your smart contract provides the required level of transparency and security for property ownership and lease.

The main functions that your smart contract will be performing are:

- **Managing the buying of properties:** The smart contract will allow users to buy properties by sending cryptocurrency to the contract and it will keep track of the ownership of the properties.

- **Managing the leasing of properties:** The smart contract will allow property owners to give leases to tenants and tenants to claim leases by sending cryptocurrency to the contract. It will also keep track of the lease details such as start and end dates. Property owners will also be able to cancel lease before the tenant has claimed lease.

- **Setting and getting prices:** The smart contract will allow the system price and property prices to be set and retrieved.

- **Transferring property ownership:** The smart contract will allow the transfer of property ownership from one user to another.

- **Keeping track of property ownership and lease details:** The smart contract will maintain a record of property ownership and lease details so that they can be queried by users.

Please note the following rules for the competition:

- Internet use is not allowed during the competition.
- Only Solidity and Clarity programming languages are allowed. Other languages will not be supported.
- Participants may use respective language documentation for syntax.
- Participants must implement the provided interface. The function will not be considered in case of failure to follow the prototype.
- Evaluation will be binary based on passed test cases.
- Plagiarism will result in disqualification from the competition.
- Any discussion between two individuals during the competition may result in immediate disqualification.