**Smart Contracts**

*What is it?*

Smart Contracts are self-executing pieces of code stored inside of a blockchain. These contracts act as an exchange system between two parties based on predefined rules without needing a third party in the middle.

Example: If you trade me 5 Ethereum, I will give you 10 ER tokens.

Example: A business sets up a fundraising campaign on the blockchain that aims to raise £2,000\*. People are free to donate whatever they like. HOWEVER, if the £2,000 goal is not met, all of the money donated will go back to the donors as the requirement for this fundraise has not been met.

\*funds are in the form of cryptocurrency

*Main Features*

Automatic – it self-executes itself without the need for human interference. It handles donations, tracks the total money raised, refunds or transfers based on whether the goal is met.

Transparent – everyone can see the contract’s state, ensuring transparency in the fundraising process. Everything is recorded.

Decentralised – it is a decentralised platform and operates directly on the blockchain. Users interact with the contract directly through their digital wallets (peer-to-peer transactions).

No fees – no platform fees charged by intermediaries like GoFundMe, so more of the raised funds go directly to the intended purpose.

*Why use Smart Contracts?*

Immutable – Smart Contracts can’t be changed once they are put on the blockchain. In order to make changes to it, you must create a new smart contract and abandon the old one. This is a great security feature as no one can tamper with the agreement once it’s created.

Distributed – Smart Contracts are distributed between users which means that no one is a sole owner. It is a financial agreement no one can argue and is all done automatically, so it eliminates human error.

*More deets on How It Works*

* Oracles sends real-life data into smart contracts
* Smart Contracts can be created using Solidity (similar to Javascript)