

## Banking Smart Contract

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### The Concept

The SimpleBank contract is a straightforward implementation of a banking system on the Ethereum blockchain. It allows users to deposit and withdraw Ether (ETH) from their accounts. Below is an explanation of its functionalities and core components:

### Key Contract Components:

- **balances:** A mapping storing the Ether balance for each account.
- **owner:** The address of the contract creator, who has special privileges as the owner.

### Core Functions:

- **constructor():** Initializes the contract, setting the contract deployer's address as the owner.
- **deposit():** Enables users to deposit Ether into their account. The deposited amount is added to their balance.
- **withdraw(uint256 amount):** Allows users to withdraw a specified amount of Ether from their account. The withdrawal is contingent on the requested amount being available in the user's balance.
- **getBalance():** Returns the Ether balance of the caller's account.

### Contract Functionality:

- **Deposit:** Users can deposit Ether into their account by invoking the deposit() function, sending the desired amount along with the transaction.
- **Withdrawal:** Users can withdraw Ether from their account by calling the withdraw() function with the amount they wish to withdraw. This action is permissible if the requested amount is available in their account balance.
- **Balance Inquiry:** The getBalance() function allows users to check their account's Ether balance.

### Concept of SimpleBank:

The SimpleBank contract emulates a basic bank account system on the Ethereum blockchain. Users can deposit funds into their accounts, withdraw when needed, and inquire about their balances. It operates on a transparent ledger, allowing users to interact with their accounts directly through specified functions.