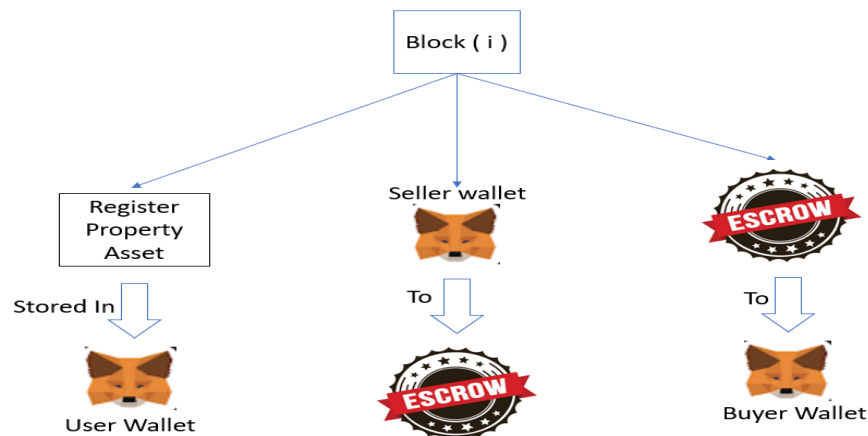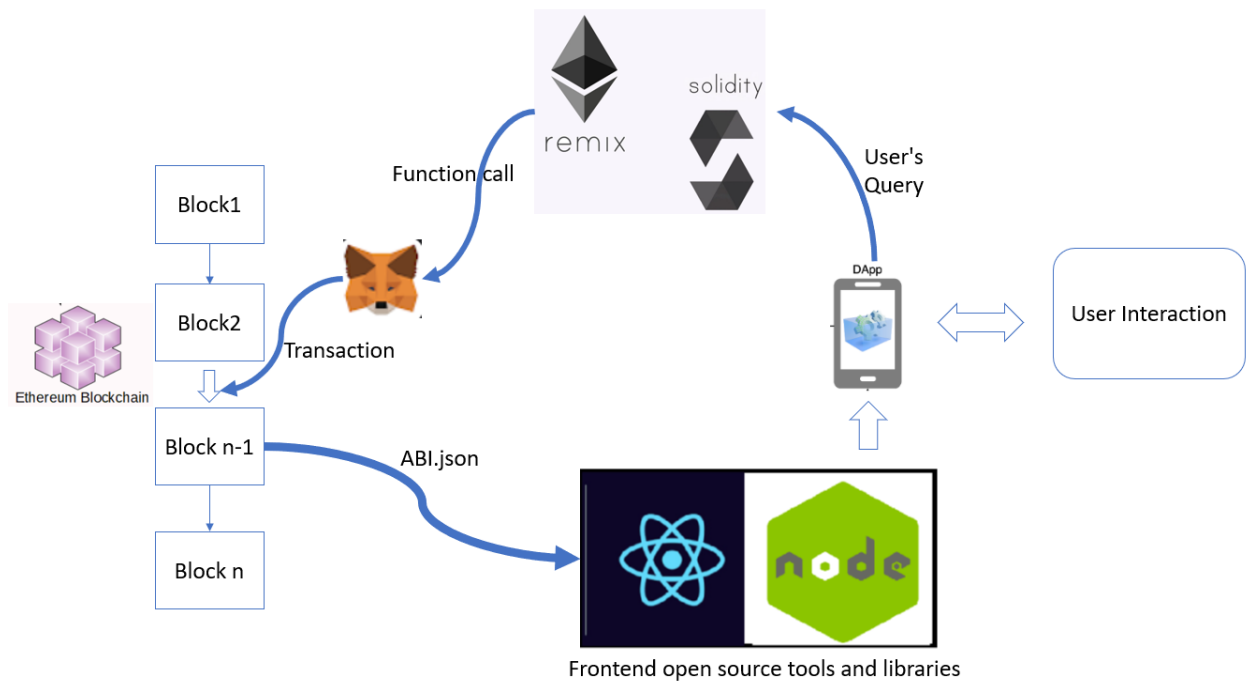# Web3 components

Connection of Web3 JS to frontend using ReactJS

- **Understanding of React packages namely web3 and ethers package.**
- **A file named abi.json is obtained once we compile our solidity code on remix IDE. This file is added to our code and this gives info of all functions defined in the smart contract and the parameters they take as input.**
- **Hence, ABI.json bridges the interaction between frontend and backend.**
- **The wallet prompt and connect calls to the respective web3 wallets was done by the ethers package.**

Frontend open source tools and libraries

Transactions between various roles :

Buyer	Seller	Web app.	Database	Blockchain
Register. →		Entry. →		
← Confirm.		← Confirm		
	Register →	Entry. →		
	← Confirm.	← Confirm		
	Login →	← Validate. Confirm. →		
	Login. →	← Validate Confirm. →		
	Register his asset →	Entry →	Entry via wallet. →	
	← Confirm.	← Confirm	← Txn Hash	
Views assets for sale. →				
Selects one asset. →				
	← Notify corresponding seller			
← agrees				
Initiate Payment →	Confirms. →		Transfer of NFT thro smart contract. →	
	← Confirmation.	← New. Txn hash.		
	← Confirmation.			

```
                        ┌─────────────────────┐
                        │  User interaction   │
                        └─────────────────────┘
                                   │
         FrontEnd                  ▼
                        ┌─────────────────────┐
                        │ Web3 Wallet connect │
                        │     (MetaMask)      │
                        └─────────────────────┘
                                   │
                                   ▼
                        ┌─────────────────────┐
         Interface      │        ABI          │
                        │    (JSON Data)      │
                        └─────────────────────┘
                                   │
                                   ▼
                        ┌─────────────────────┐
                        │ Solidity code for the│
                        │      contract       │
                        └─────────────────────┘
                                   │
         Backend                   ▼
                        ┌─────────────────────┐
                        │  Compiled using     │
                        │      Remix          │
                        └─────────────────────┘
                                   │
                                   ▼
                        ┌─────────────────────┐
                        │ Contract deployed   │
                        │   using Remix       │
                        └─────────────────────┘
```