

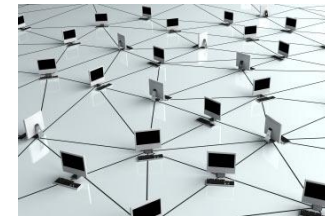
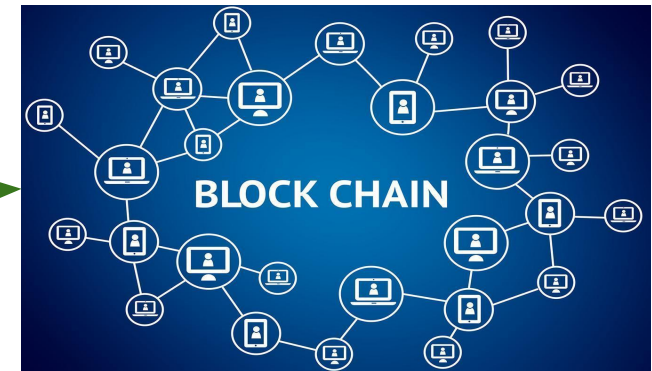


AEC Blockstarter 4.0 (4.2) – Group A

Patrick Friedrich, Morgan K. Geldenhuys, Jan Kalkan, Dennis Meyer, Marc Ottenbacher, Thanh Tuan
Tenh Cong, Johnny Tran, Janis von Bleichert | ISE | Blockstarter 4.0



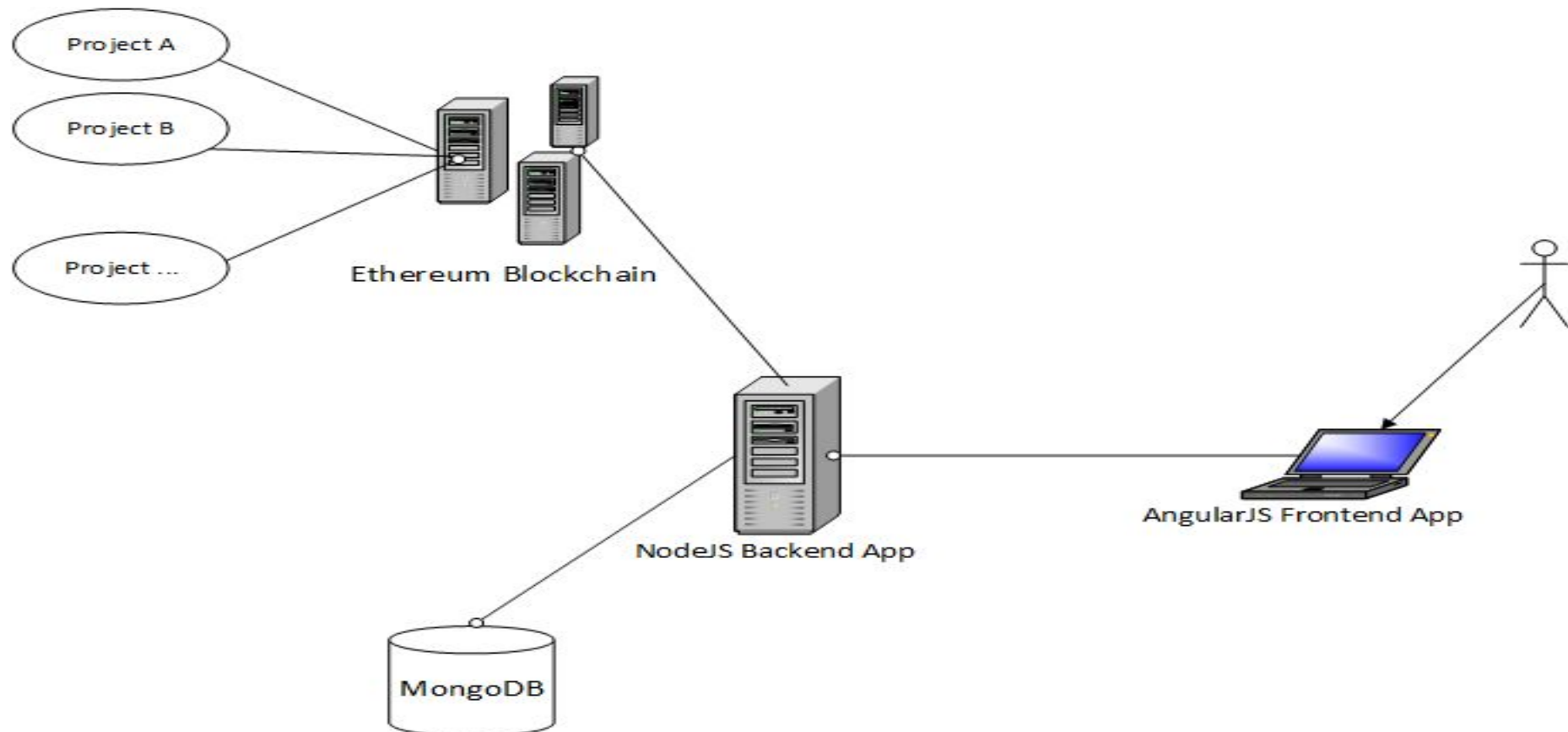
Motivation



KICK
STARTER
.COM

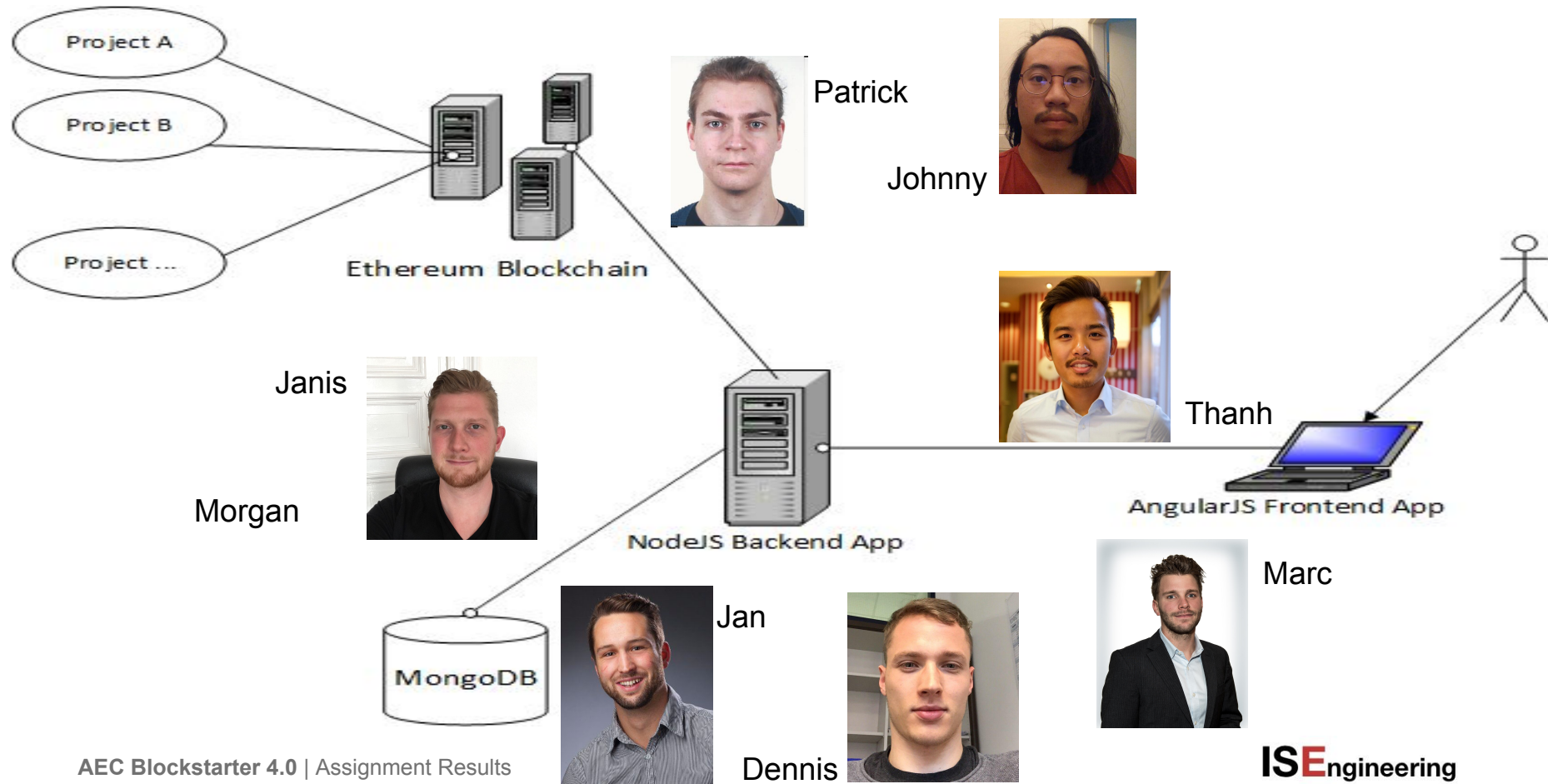


Architecture





Team and Task Division





Smart Contract(s)

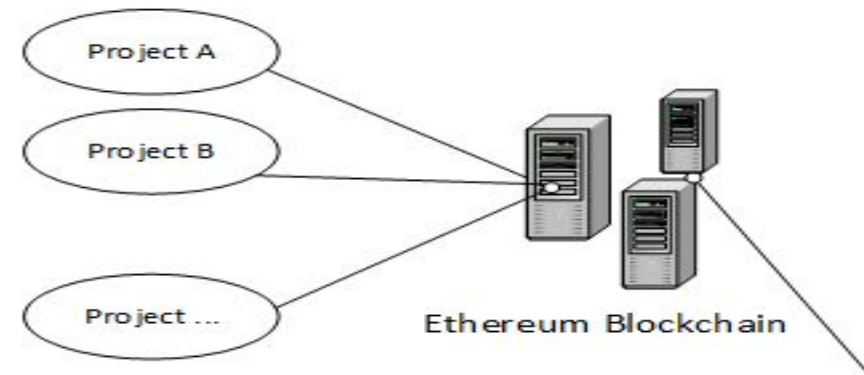
Language: Solidity

IDE: Remix

Testing: Remix, Postman, with
Frontend GUI

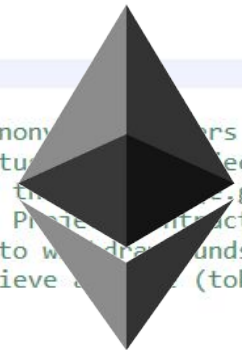
Base Implementation: create, kill,
invest, getter methods (e.g.
Token Share)

Extensions: Funding Deadline,
Trade Tokens, Voting on Issues



browser/project.sol ✖

```
1 pragma solidity ^0.4.8;
2
3 /*- Receive Ether from anonymous backers
4 - Update the funding status of the project
5 - Show funding status of the project (e.g., show
6 - Allow the Creator of a Project Contract to remove
7 - allows project owners to withdraw funds when a
8 - allows backers to retrieve a share (token) for
9
10 contract Project{
11
12     mapping(address => uint) backers;
13     mapping(uint => address) indicesAddresses;
14     uint numberOfBackers;
15     address owner;
16     uint funding_goal;
17     uint paid_in = 0;
18     uint totalWithdrawnAmount;
```





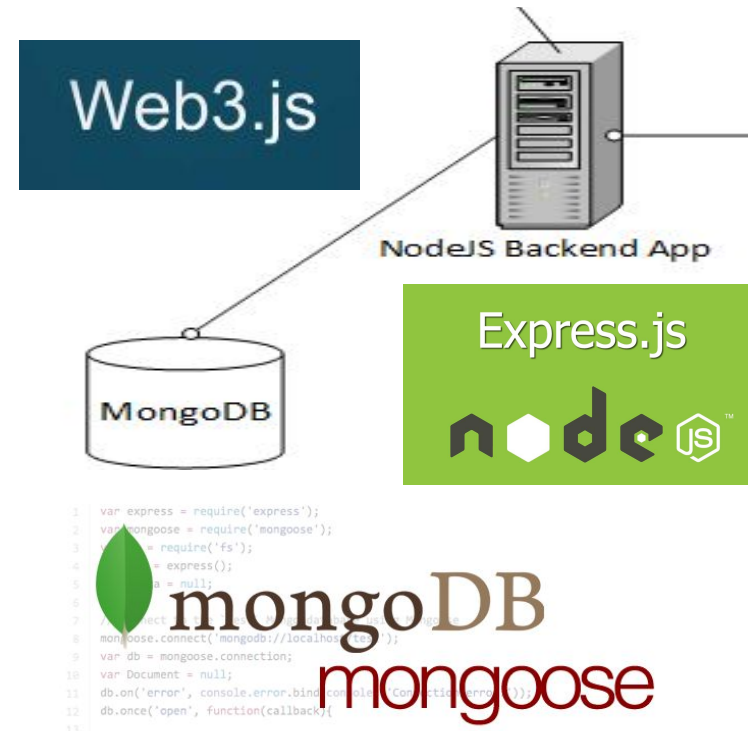
Backend (1/2)

Technologies: Node.js,
Express.js, MongoDB,
Mongoose, Web3.js

Testing: Postman, with Frontend
GUI

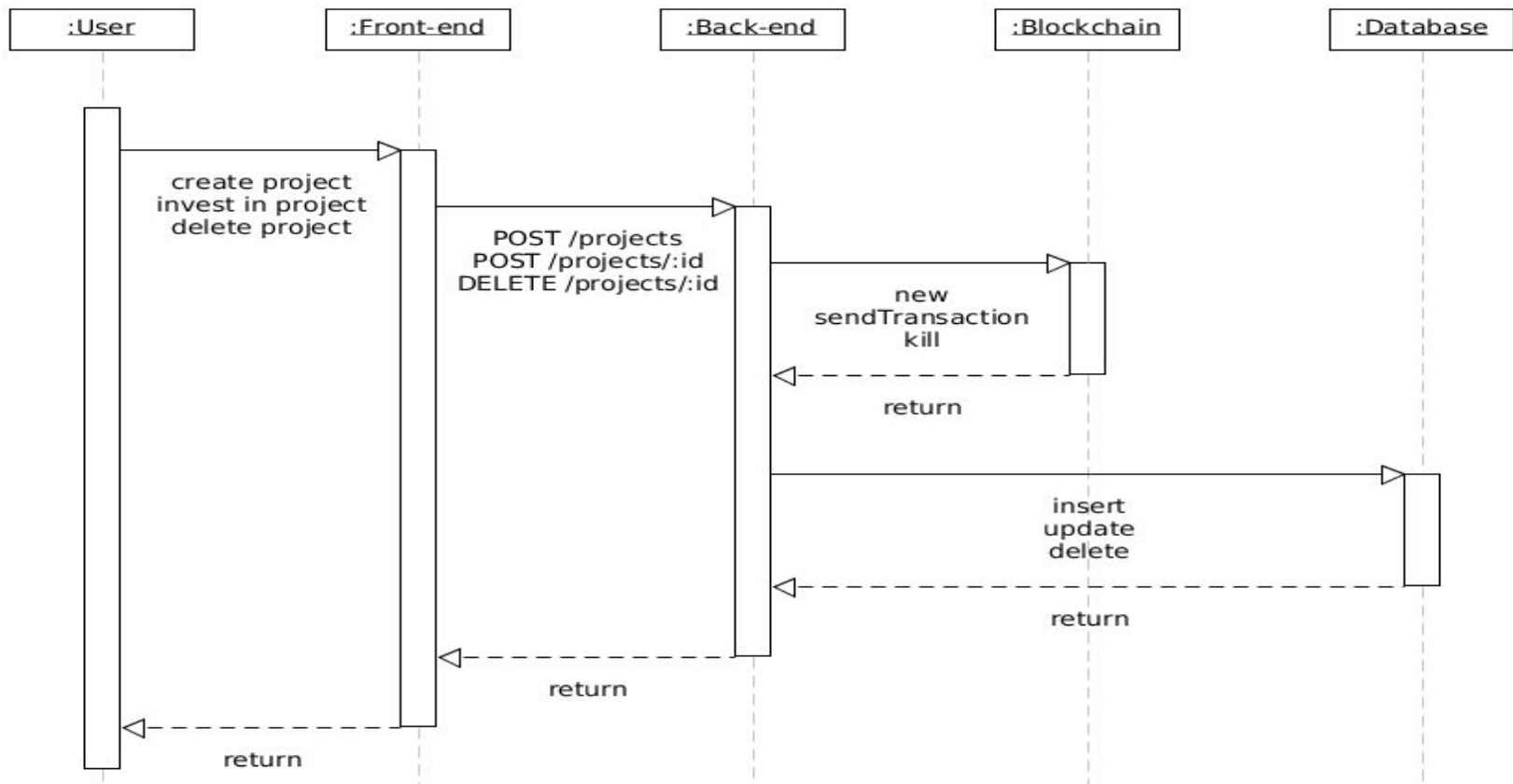
Data models: user, project,
contract

Provides: Routes (REST API)



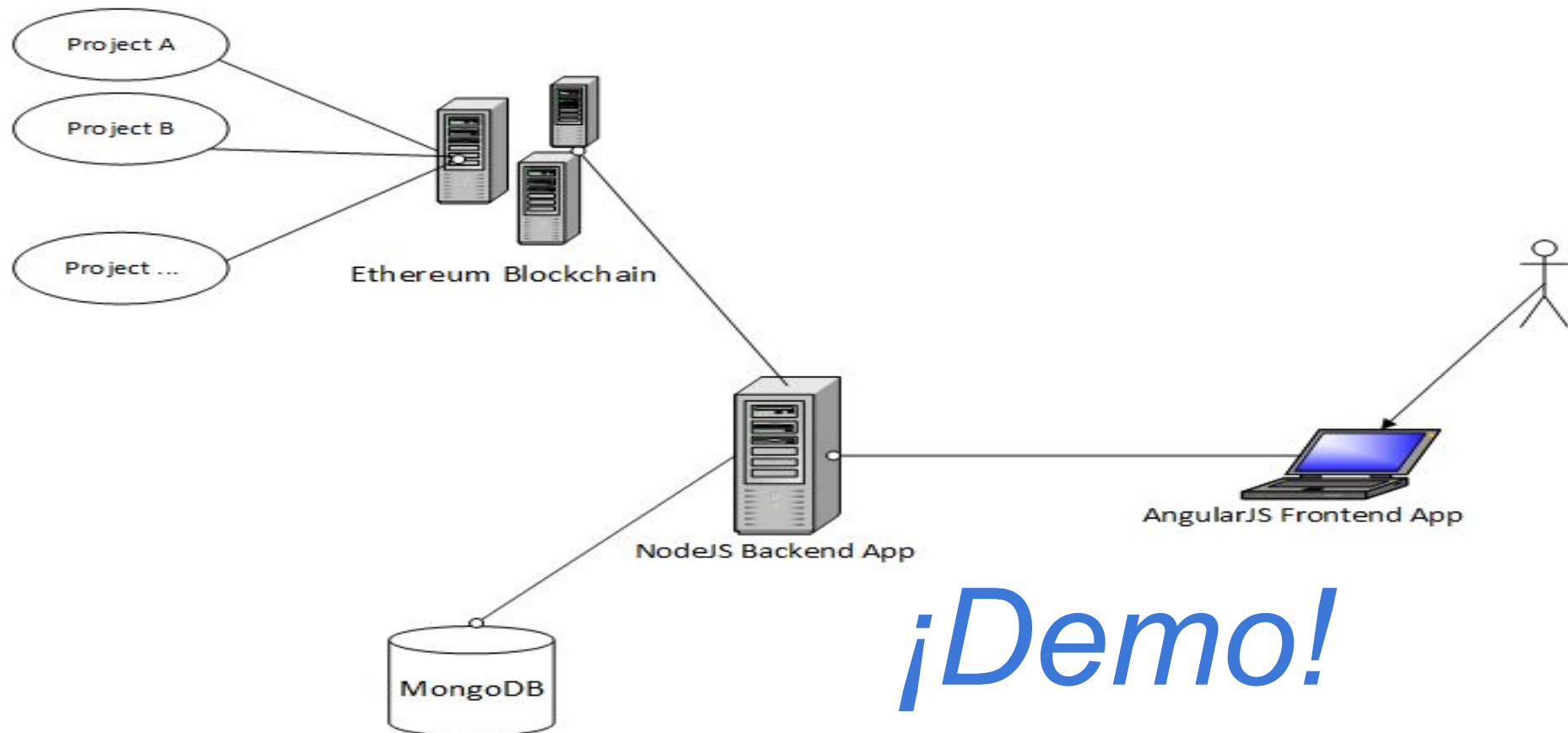


Backend (2/2) - Base Project Transactions





Frontend



iDemo!



Strong Points & Potential Next Development Steps



- ★ All Functionalities of Crowdfunding platform
- ★ Synchronization MongoDB & Blockchain
- ★ Fast Response Times for User



- Distributed Backend Environment
- Voting Functionality into Application



Q & A



Thank You