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Blockstarter

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Outline

Concept

Blockstarter is a decentralized application enabling the cryptosphere to crowdfund and crowdcontrol innovative project ideas. The dApp involves three types of stakeholders:

- Founders: can create projects with budget and milestones
- Angels: can finance projects and vote on funds release
- Contributors: can finance project but do not have voting right

- Concept
- Workflow
- Implementation
- Project creation
- Demo

Workflow - 1

- Founder creates project specifying idea details, total budget requested, milestones (each with description, deadline and percentage of fund release)
- Anyone can fund to the project, contributions above 1% of the total requested budget grant Angel rank.
- Once the requested budget is achieved, the project starts. Founder is supposed to communicate through an external service (website, social networks, etc) the evolution of the project to the community. Contributions can still take place.

Workflow - 2

- When a milestone's deadline is reached, the founder can request the associated funds
- Contributors can request their funds back any time
- Angels can decide any time to request the project to halt (resume) if they are dissatisfied (reassured) with the project development. Delays induced by haltings are added to the milestones original delays.
- Upon the final milestone completion, remaining funds are all transferred to the founder.

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Implementation - Structure

Hierarchy of three classes:

- ProjectBase: core components of a project
- ProjectWithMilestones: milestone logic
- ProjectWithAngels: angel rank voting logic

And an additional library for the milestone struct and milestone array validation: ProjectUtils

Implementation - ProjectBase

Members

name	type
founder	address
name	string
description	string
budget	uint
totalReceived	uint
started	bool
completed	bool
received	addr $\Rightarrow$ uint

Events

- ProjectStarted
- ProjectCompleted

Modifiers

- isFounder
- hasFunds
- projectRunning

Implementation - Milestones

```
struct Milestone {
    bool completed;
    string description;
    uint deadline;
    uint percentageOfBudget;
}
```

- inherits from project base
- each project has array of milestones
- not all funds released at once
- individual deadlines
- individual payouts

Implementation - ProjectWithAngels

- inherits from project with milestones
- users that contribute a certain amount become angels
- angels can request to halt / resume the project
- when the project is halted, no funds can be released by the founder
- when a project is halted, the open milestones are delayed
- Emits events when new angel is born or project is halted / resumed

Concept
Project base
Milestones
Angels
Project creation
Demo

Project creation

The main contract provides means to create a new project:

name	type	example
name	string	need
description	string	gib me monies
requestedBudget	uint	$32*10^{18}$
founder	address	0x1337C0D3
descriptions	string[]	["phase 1", "phase 2"]
deadlines	uint[]	[1607989310 ,1607999310]
percentages	uint []	[29, 71]

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Demo

Questions?