PROJECT PLAN DOCUMENT

Team:

Pratik Patel   -101339642

Priya Minhas   -101339644

Natasha Rupani -101339597

Shivam Rattan   -101339648

Vaibhav Madaan -101339653

Team – UnPerish

COVID-19 Vaccine Supply Chain solution

Design Patterns for Blockchain – BCDV 1011

Professor: Dave Mckay & Paul Chafe

Project Plan

This is a high-level project plan document for BCDV1011 – Blockchain Design patterns (by Prof. Dave Mckay and Paul Chafe).

The document highlights as below:

- Project team and their competencies
- Project decomposition in the form of Epics
- Project Time estimates and
- Project Costing

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The Team

Pratik Patel (101339642): Pratik is FinTech professional with five years of rich experience in finance and insurance sector as Business Analyst. He has done his bachelor's in Information Technology and Master's in Business Administration, which really helps him to dive deep in finance domain along with technical aspects. He is passionate about learning new technology and loves to wander in trails in free time.

Priya Minhas (101339644): Priya is a Full Stack Developer with an experience of more than 7 years in the field of web development. She is passionate about coding and logic application. Being a Master's in Computer applications has enabled her to work towards developing various websites by using both frontend and backend technologies. In future she would like to be a part of a blockchain development project.

Shivam Rattan (101339648): Shivam is a computer science engineer, raised in India, by background, and has served in various roles such as business analyst, project management, system administration, functional consultant, and sales in his career. He is passionate about blockchain development, yoga, travelling and trying different cuisines in his free time.

Vaibhav Madaan (101339653): Vaibhav is a Supply Chain technology professional with 5+ years of comprehensive experience in E-commerce startups. An engineer by education and a problem solver at heart, Vaibhav has worked on various technologies and has helped build organizational solutions from ground-up. Learning new technologies to build sustainable and scalable solutions is what keeps him going.

Natasha Rupani (101339597): Natasha is a technology consultant and Technical Project Manager with 8 years of experience in IT finance and Fintech. She is also a hands on Techie who loves to learn and implement new technologies. She is a Management psot grad with IT degree who brings in a unique perspective that combines the two worlds.

Project decomposition and dependencies

The projects have been divided into 3 epics that are independent of each other. However, the tasks within each EPIC are interdependent.

Epic 1 : Ethereum smart contracts

User Story 1: ERC 721 smart contract: Developing Etherium smart contracts for supply chain tracking using ERC721 standard. Some of the decompositions for the project include:

User Story 2: Farm to factory transportation smart contract

User Story 3: Factory/Packaging smart contract

User Story 4: SupplyChain smart contract

Epic 2 : UI/UX for information to be retrieved

User Story 4: Creating a user interface for the users to interact with using various Javascript frameworks.

User Story 5: Install and connect Node JS to application

User Story 6: Install and connect Express to application

User Story 7: Install and connect React to the application

Epic 3: Oracles, IOTs and Databases

User Story 8: Setting up the oracles for the blockchain to capture and display data. This epic also includes IOT programming and oracles to dump the data to be used for analytics and records.

User Story 9: IOT programming and connection to app

User story 10: IOT and Oracle information retrieval

User story 11: Legacy backup storage offchain using mongo DB for analytics, and history.

Time Estimates

Tasks Description	Estimated Hours	Hours Worked	Task Assigned	Completion Date
1. Documentation				
1.1 Need Analysis document	3	4	Pratik Vaibhav	02-10-2021
1.2 Architecture Design	4	6	Natasha	02-12-2021
1.3 Flow Diagram	2	2	Natasha	02-12-2021
1.4 Defining Tech Stack	2	1.5	Priya	02-12-2021
1.5 Task Assign document	2	2	Priya	02-10-2021
1.6 Designing EPICs	5	4	Shivam	02-06-2021
2. Web Application Frontend				
2.1 Login	3	3	Priya	02-08-2021
2.2 Dashboard	5	6	Priya	02-09-2021
2.3 Logistics Page	3	5	Priya	02-09-2021
2.4 User Profile Page	2	2	Priya	02-09-2021
2.5 Admin Dashboard	4	4	Priya	02-10-2021
3. Web Application Backend				
3.1 Defining Database documents	1	1	Priya	02-10-2021
3.2 Connection of Database with frontend	1	2	Priya	02-10-2021
4. Smart Contracts				02-10-2021
4.1 ERC721 contract implementation	2	2	Natasha	02-11-2021
4.2 Defining other Smart Contracts	3	4	Natasha	02-12-2021
4.3 Developing Smart Contract Test Cases	2	2	Vaibhav	02-12-2021
5. Connecting IOT Devices to the web server	3	3	Pratik Shivam	02-12-2021

Staff and Billing

Name	Project Role	Hours Worked	Hourly Rate	Total Payout
Pratik Patel	Business Analyst and Business Development Manager	7	$70	$490
Priya Minhas	Leard Developer (Node Express Front end and backend)	30	$75	$2250
Natasha Rupani	Smart contract developer and Solution Architect	20	$75	$1500
Shivam Rattan	Scrum Master and Project Planner	7	$70	$490
Vaibhav Madaan	Business Analyst and Tester	6	$70	$420