Idea Proposal
CA472 - EC Team Project

Dublin City University - School of Computing

Student Name	Student Number
Greg Kelly	19398263
Jesse Keogh	19491194

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Project Title: Kontribute - Web3 Storytelling

Project Summary

Kontribute at its core is a creative writing app - meaning authors can come to the platform with their ideas and share them with their audience. Tokenization is incorporated on top of this idea to provide monetization to the author so they can receive economical benefits and be encouraged to create more quality content on the platform. Kontribute can facilitate this due to it being hosted on the blockchain.

Blockchains allows apps to be owned by the community (rather than big corporations) and allows custom virtual fungible and non-fungible tokens to be transferred between users to pay for fees and services and exchange information and data. Examples of such tokens could be characters from an author's story on the platform. Users of Kontribute could trade these tokens with each other in the built-in marketplace on the application. Such concepts are not possible without a blockchain. There are other benefits to being hosted on the blockchain such as increased uptime, increased security, better transparency and better funding opportunities for small teams (as this is a relatively new industry). Kontribute takes advantage of blockchain technology to make sure user data is owned by the user themselves and the data and the structure of the code is immutable. The purpose of hosting our app on a blockchain opens us up to a new world of possibilities that is just not possible in regular server hosting.

Monetization will be based on the principles of a free market[1]. Meaning profits from an author's story will be based on what stories users are enjoying and what is trending on the application, in turn affecting the demand for their stories and tokens. Authors receive monetary benefits from fans buying their tokens or from voluntary donations.

Expected Technical Delivery

Frontend:

We will take a contemporary approach to the frontend design in terms of using modern React.js practices such as functional components and hooks as well as implementing the most popular React state management library: Redux. The idea is to make as many readable dynamic components as possible taking a "less is more" approach. We are adamant for our decentralised app to look and feel polished and well-constructed across all device screens so we use Chakra UI for most of the UI design and CSS. This allows custom and fast development of the UI as well as responsive components.

Backend:

Our backend is a mix between in-house smart contracts written in Motoko (A smart contract programming language developed for ICP) as well as using frontend API's to call external smart contracts on the ICP blockchain. We call features and tools from other Motoko packages using Vessel - a Motoko package manager. A large chunk of our Motoko backend will be calling the Anvil Protocols smart contracts - an open source protocol - covering our whole fungible and non-fungible token integration. We also will have custom smart contracts for managing and storing user stories that implement a well known open source library - this section of the backend will follow a NoSQL type data model for managing the smart contract data - making our backend smart contracts horizontally scalable. All of this makes Kontribute a multi-smart contract decentralised app.

Market Rationale

We believe there to be a large market for our project idea. Kontribute focuses on the imagination and creativity of its users but also taps into the huge blockchain market. Kontribute operates in a unique way compared to other creative writing applications and from this we believe it will grow strongly. The global blockchain market was valued at USD 4.67 billion in 2021 and is expected to grow to a staggering USD 163.83 billion in 2029[2]. We hope to grow alongside these projections. Blockchain is a relatively new concept, having only come to the forefront in recent years. Being one of the first businesses to adopt blockchain technology as a major part of how their application functions is something that excites us. There have been large companies such as OpenSea, one the largest Nft (Non-Fungible Token) Marketplaces, to come before us that uses blockchain technology. We use these companies as inspiration as to what we believe Kontribute may become in the future.

However, blockchain isn't the only thing that makes Kontribute an attractive proposal. The application may rely on talented writers and artists to create content such as stories and digital art on the platform but there is no lack of supply. In fact, it is said there are over 100 million people around the world that read and write fanfiction[3]. Having the opportunity to trade tokens such as Nfts of characters in the stories you love will drive home an immersive and alluring experience to content consumers on the platform. One could see this as an online version of collecting Pokemon cards, with a card selling for $5.725 million in April 2022. Of course initially the stories won't be as big as Pokemon but we hope that someday we can achieve something like this.

Kontribute taps into two markets at the same time, blockchain and creative writing/fanfiction - Kontribute can also look into the digital publishing industry valued at $41 billion in 2022[4]. Due to this, we have the highest belief that Kontribute will succeed as time goes on. We hope that down the line we will have a community of authors, artists and content consumers creating an immersive environment for all who love imagination and creativity.

Proposed Timeline

Below we have a line diagram of how we plan on completing our project throughout the year until the end of semester two. The basic timeline is split on a month by month basis. You'll notice we've only included the significant activities in each month. We will be carrying out other tasks during these months but these activities are which we consider to be milestones during our project. This diagram is to be used as a summary.

Each activity has a title, responsible member(s) and description. You will see the ReactJS backend will largely be where Jesse is responsible. Greg will work more closely with the frontend of the application. From these moments onwards, however, we expect both members to actively participate in all activities going forward, outlined by 'Team' being responsible.
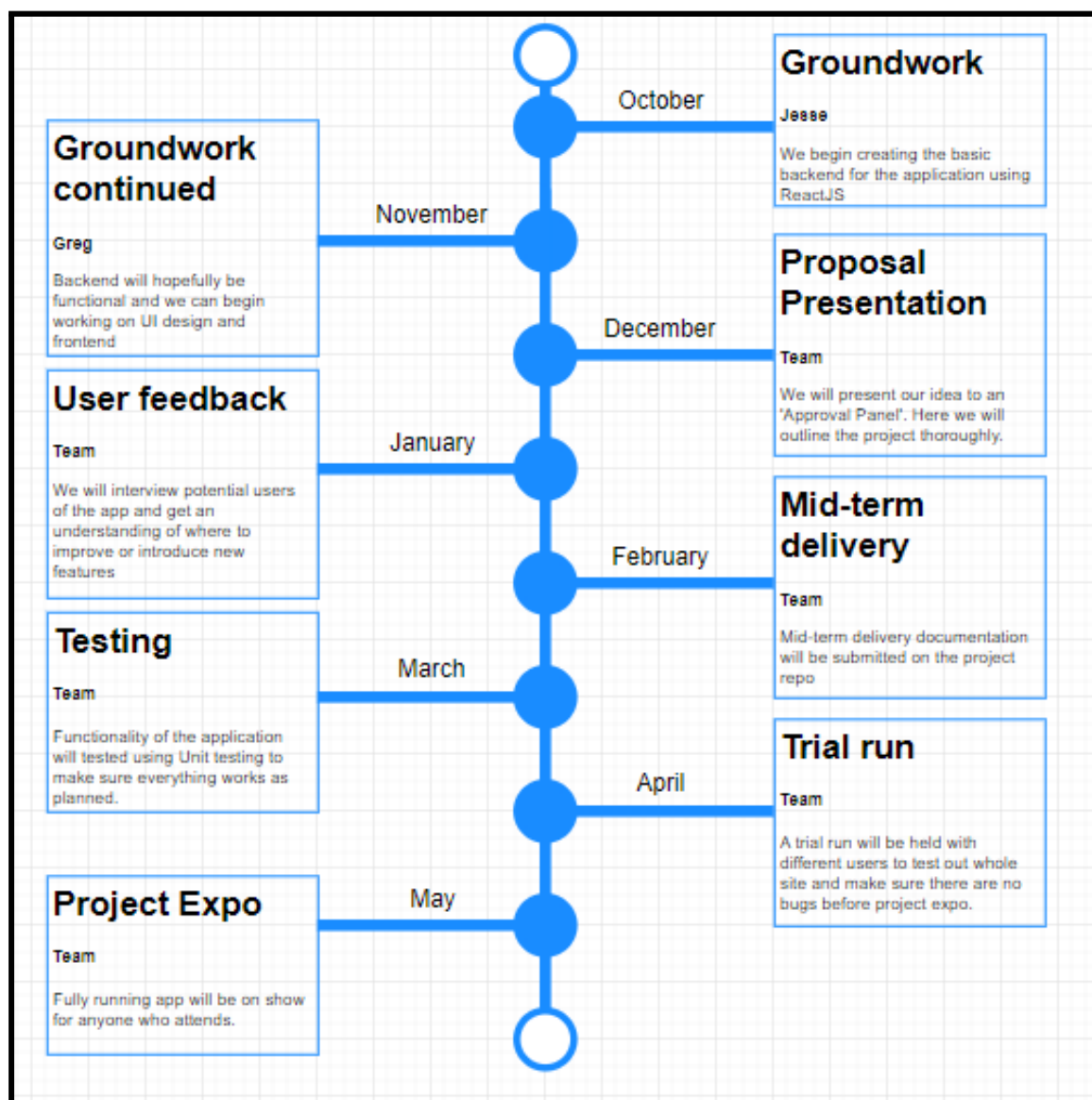
Workload Distribution

Jesse Keogh:

Jesse has experience in smart contract development and software engineering. He will have a large focus on the technical aspects of the project considering relevant experience in this area:

- Technical structure of project code and planning
- Research and development of smart contracts
- Research and development of frontend components
- API integrations
- Research and creative guidance of project outcome

Greg Kelly:

Greg has experience in data modelling, financial planning and commercial knowledge of market requirements:

- Data modelling and UI research and design
- Analyse financial data, prepare budgets and monitor expenses and costs
- Implement organisational strategies
- Ensure growth and communicate with relevant stakeholders
- Assess and monitor organisational risks

Staff Consulted:

We consulted with our project advisor Dr. Silvana MacMahon prior to submitting this document. She helped us in preparing this idea proposal document.

References

[1] Team, T.I. (2022) *Free market definition & impact on the economy, Investopedia*. Investopedia. Available at:
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[3] Sharma, Mahika, *Fanfiction leaves its mark on pop culture, chantillynews.org*. Chantilly. Available at:
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[4] *Digital Publishing Market Size 2022 and growth analysis* (no date) *The Business Research Company*. Available at:
https://www.thebusinessresearchcompany.com/report/digital-publishing-global-market-report#:~:text=The%20global%20digital%20publishing%20market,least%20in%20the%20short%20term. (Accessed: October 19, 2022).