The KCLBlockchainHub App and tokenomics of KCL Blockchain Token (KBT) as the core of the KCL Ecosystem

1. This dApp is a prototype for a centralized hub that an organization could use to 1. galvanize engagement and collaboration between members, 2. reward them for contributing to the group, and 3. incentivize them to strategically think about the organization's long-term success. We are using the example of the KCL Blockchain society, but this dApp could be used for any organization that wants to maximize the above mentioned goals. With this in mind, we shall proceed by calling the dApp the KCLBlockchainHub and the special cross chain (XC20 compliant - Substrate compatible) fungible token that will incentivise desired behavior in the organization as KCL Blockchain Token (KBT).
This KCLBlockchainHub will then act as a central node for other projects that the organization works on in the Polkadot environment, big and small, to coalesce around. What will allow KCLBlockchainHub to act as the sun, in a solar system of KCL Blockchain projects (henceforth refer to as the KCL Ecosystem) is the KBT token, which will act as the currency for all KCL Blockchain Projects in the KCL Ecosystem, but which can <u>only be used on KCLBlockchainHub to buy collectibles and merchandise.</u> Furthermore, collectibles (more discussed later) could also be transferred to other projects within the KCL Ecosystem. The creation of this KCL Ecosystem is possible because of the cross-chain transferability of tokens on the Polkadot environment, and the ability to use native tokens to pay fees on other parachains in the Polkadot environment.

   Other organizations that adopt the dApp will automatically become a part of the extended Affiliates Ecosystem, each with their own central hub around which to organize (Eg: UCLBlockchainHub). Affiliates will be able to exchange their native tokens at favorable rates with low transaction costs. The price of KBT will be driven up by the use and demand of KBT within the KCL Ecosystem but also be driven up by strength of the network since exchange rates between affiliate coins will always be preferable at the hubs within the Affiliate Ecosystem.

2. **What are the behaviors in KCL Blockchain that we want to promote?**
We want to be able to create a supportive and exciting community of KCL students that collaborate with each other on projects. We want members to view KCL Blockchain's success as their own by representing KCL Blockchain in events across the country, and working on blockchain technology related projects together. Doing this will not only boost KCL Blockchain's reputation, but also give members opportunities to grow as individuals.

3. **Why do we need a token?**

   1. If anyone can buy membership and Level 1 membership costs 10 pounds but renewal = 10 KBT reward and 10 KBT gradually deposited over membership term then the cost of KBT = approx 0.5 pounds and will not go any higher.

People make decisions and act according to incentives and disincentives. Since the goal of KCLBlockchainHub is to promote the behaviors stated in 2, the KBT will act as a means to <u>reward commitment to the society.</u> With a token that operationalizes a member's efforts to contribute to the growth, success, and sense of community within the society, we have a means to create 'skin in the game' for members.

4. **How will KBT be minted?**
KBT will be minted by the platform when a member of KCLBlockchain purchases a membership, or wins an award. KBT will also be gradually minted over time as long as there are KCLBMS members who have purchased membership. In all these cases the KBT that is minted is transferred to the wallet of the member, whether he/she has purchased membership, won an award, or is receiving a steady rate of KBT over time as a member.
As the KCL Ecosystem grows and other projects are created, KBT may also be minted to provide liquidity for other KCL Blockchain projects that will use KBT as their currency.

5. **What can KBT be used for?**
KBT can be exchanged at the KCLBlockchain Hub for collectibles, merchandise, tickets to KCLBlockchain events, and for membership and upgrades (eventually). The merchandise will be sold at a discounted rate if members use KBT.

6. **What are Collectibles?**
At present they are in the form of Profile Titles and Profile Stickers but new collectibles can be added in time (eg: stickers in chat). Collectibles can only be bought using KBT. Not all collectibles can be bought. Some collectibles (possibly along with a KBT drop) will only be awarded to members for certain behaviors, like winning a hackathon, or being highly ranked on the leaderboard (more about leaderboard later).
Examples of Profile Titles are: champion, master hacker, meme references, super helper (an example of a title that cannot be bought but is awarded to members who dedicate time to teach others in the community), etc.
Examples of Profile Stickers are: animated monsters that are cute, aesthetic icons, emojis, memes, etc.
Collectibles could be remodeled into NTFs in the future that will then be sent to other projects (eg: a game) on other chains within the KCL Ecosystem using Polkadot's cross chain compatibility. (Eg: Member X with the master-coder title will have her title appear on her profile as she plays an NFT game on the KCL Ecosystem while she uses KBT to make purchases in-game.

7. **What is Membership?**
Membership serves three purposes: 1. It creates exclusivity such that only real world verified members of KCL Blockchain can reap the benefits of being a part of the ecosystem. 2. It creates a hierarchy where commitment to the organization by either buying or earning high levels of membership results in greater rewards. 3. It allows for us

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to pin the value of KBT to something intangible (the value of being a KCL Blockchain member), which is necessary for the price of the coin to go up[1]. Membership can be bought if an individual is a part of KCL Blockchain. Membership is divided into 3 levels (may increase later) with different society rewards for different levels. The initial benefit of buying Membership is the fact that some KBT will be minted and sent to the members' wallet. Following this initial drop, a gradual stream of KBT will be minted and sent to the wallets of members at a rate that is determined by their membership level. Other rewards of different levels of membership include:

Level 1:
Access to Discord Channel
Discounts to paid events if use KBT
Discounts on merchandise if use KBT
Resources like: fundamentals of blockchains, news letter, etc.
Voting rights

Level 2:
All Level 1
Private Discord Channel
Exclusive collectibles

Level 3:
All Level 2
VIP access to events
Exclusive collectibles
Custom merch

The pricing of the membership has not yet been decided but Level 1 should be extremely accessible. The point is not to create a system where people who can afford to buy high level membership are the only people who can reap the rewards of Level 2 and 3. Thus the KBT awarded for being a positive member of the community must be enough that long term members and high level contributors can afford Level 2 and 3 membership having ONLY paid the fee to buy Level 1 membership.

8. **What is the Leaderboard?**
   The leaderboard is a list ranking the top 'minters' of KBT on the KCLBlockchain Hub. A member mints KBT by buying membership, staying a member and receiving a gradual rate of KBT over time, or by being a productive member of the organization such that they are rewarded with KBT drops. Rewards for being productive members of KCLBlockchainHub could include awards for making a successful new project, completing the 'Introduction to Blockchain Course', publishing articles on the blog, being a positive member of discord, etc.
   'Minters' can be distinguished from KBT holders since KBT holders are just people who hold KBT, but may not necessarily be responsible for minting any. An individual may hold

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a huge amount of KBT (buy trading for it) but may not even register on the leaderboard. Alternatively, an individual may be at the top of the leaderboard without having much KBT in their wallet (since they traded their KBT for collectibles, merch, etc). The purpose of the leaderboard is to acknowledge members of the organization that have truly contributed to its growth.

9. **Who are the players in this tokenomy?**
The Oracle (or President)
The Oracle is the single most powerful decision making entity in KCLBlockchainHub. They are responsible for the regulation of KBT within the KCL Ecosystem. Since our organization is a student society, the Oracle would most likely be our president, the individual who is most personally invested in seeing the ecosystem thrive. The Oracle performs the following tasks, taking into consideration the health of the KBT token: A. Determines the amount of KBT dropped into the wallet of a new member who purchased membership. B. Determines the rate of release of KBT overtime for each membership level. C. Determines the transaction fees (and also the percentages of the transaction fees that would; 1. Go to developers wallet, 2. Go to the general upkeep of the society and organization, 3. Be burned to combat inflation. D. Determines how much of the KBT that is exchanged for collectibles and merch is burned, and how much is sent to the liquidity pool (should the need for a liquidity pool arise). E. Approves the projects that the Demos decides to pursue.

The Demos (DAO)
The Demos act as a counterbalance to the centralized power of the Oracle. The Oracle and the Demos work together to make decisions for KCLBlockchainHub. The Demos is a decision-making body that emerges from the combined voting of the Members of the organization, and will be set up to operate as a DAO. The Demos will be able to set agendas vote in some areas; primarily what projects need to be focussed on, what new collectables should be added, and who in the community should be awarded for the awards that involve subjective criteria (eg: who was the most helpful).

The Members (or Consumers)
There are the members of KCL Blockchain that have purchased memberships. They are indirectly responsible for how much KBT is minted but also will be the main consumers of KBT, which they will trade for collectibles, etc. As mentioned earlier, Members will be able to earn KBT over time, exchange other tokens for KBT, earn KBT for desired behaviors, exchange KBT for other tokens, trade KBT for discounted merch and tickets, and trade KBT for collectibles.

Merchants
Merchants are a possible third party that could exist on the KCLBlockchain Hub. They could sell merch for KBT at a discounted rate but increase their customer base by listing products on the platform.

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10. How will there be a stable thriving ecosystem?

<u>More in-flow than out-flow</u>

The tokenomy will survive as long as there is a greater influx of tokens entering the system and leaving the system. This creates buying pressure. In our system the fact that collectibles and merch can only be bought on the KCLBlockchain Hub with KBT, combined with the fact that members who are contributing to the ecosystem will have initial control of KBT means that they will not be incentivised to immediately convert it into another token and use it.

<u>Circulation volume needs to be high</u>

This will essentially be a function of user engagement. If the collectibles, merch, and exclusivity earned from being a member of KCLBlockchain are real incentives to members, then there will be a large turnover of currency. This will compound with the number of projects in the KCL Ecosystem that use KBT. Oracle will be limited from making transaction costs too high.

<u>Token hold time is long</u>

Since the merchandise will be tangible objects of high quality. Members will be incentivised to hold onto their KBT to save up for the merchandise. KBT will have use cases in other projects in the KCL Ecosystem as well, which will increase the desire for individuals to use KBT.

<u>Token supply</u>

The tokenomy will have a hybrid model regulating the total token supply. While there is theoretically no limit to the amount of KBT that can be rewarded for desired activities and being members, the oracle has the ability to set the amount of KBT that is burned during transactions on KCLBlockchainHub. A desirable token supply that is dynamically regulated between 100000 and 1000000 but takes into consideration the number of current members would be optimal.

11. Price Determination

The price of KBT will be determined by the free market. It will naturally emerge as a consequence of people buying and selling it on exchanges in the Polkadot environment. The price of KBT in the KCLBlockchainHub liquidity pool will be an aggregate of the price of KBT on the major decentralized exchanges.

Citations

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