

# Project Loyalty System Proposal

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## Objectives

- A standalone loyalty system in the x pay ecosystem to be integrated between X Pay POS/ marketplace and e-commerce and other third party systems.
- Innovating the X Pay ecosystem to make it more dynamic and more user experiences.

## Introduction

Main vision of our project is to enforce a loyalty system that can be integrated between the blockchain security of various X Pay ecosystems that consists of levelling reward systems and loyalty coin systems. Customers and merchants can subscribe to a prime/gold tier version of our membership to enjoy a series of benefits of its own. Users can earn their own rewards and loyalty coins by levelling up and use the coin to purchase specific vouchers/products in the exchange store.

# System Diagram

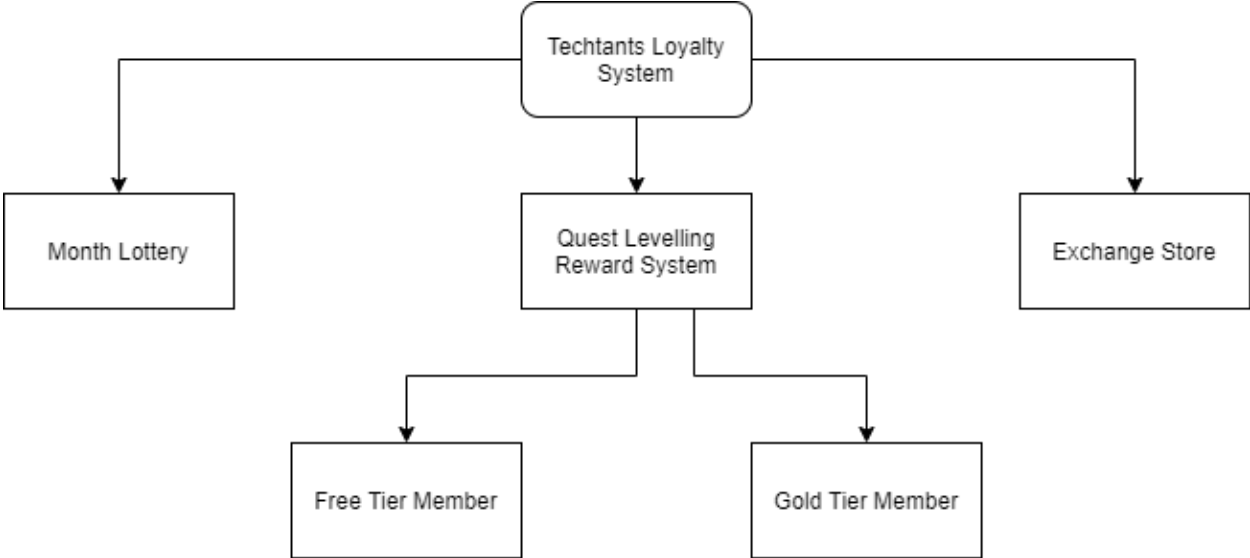
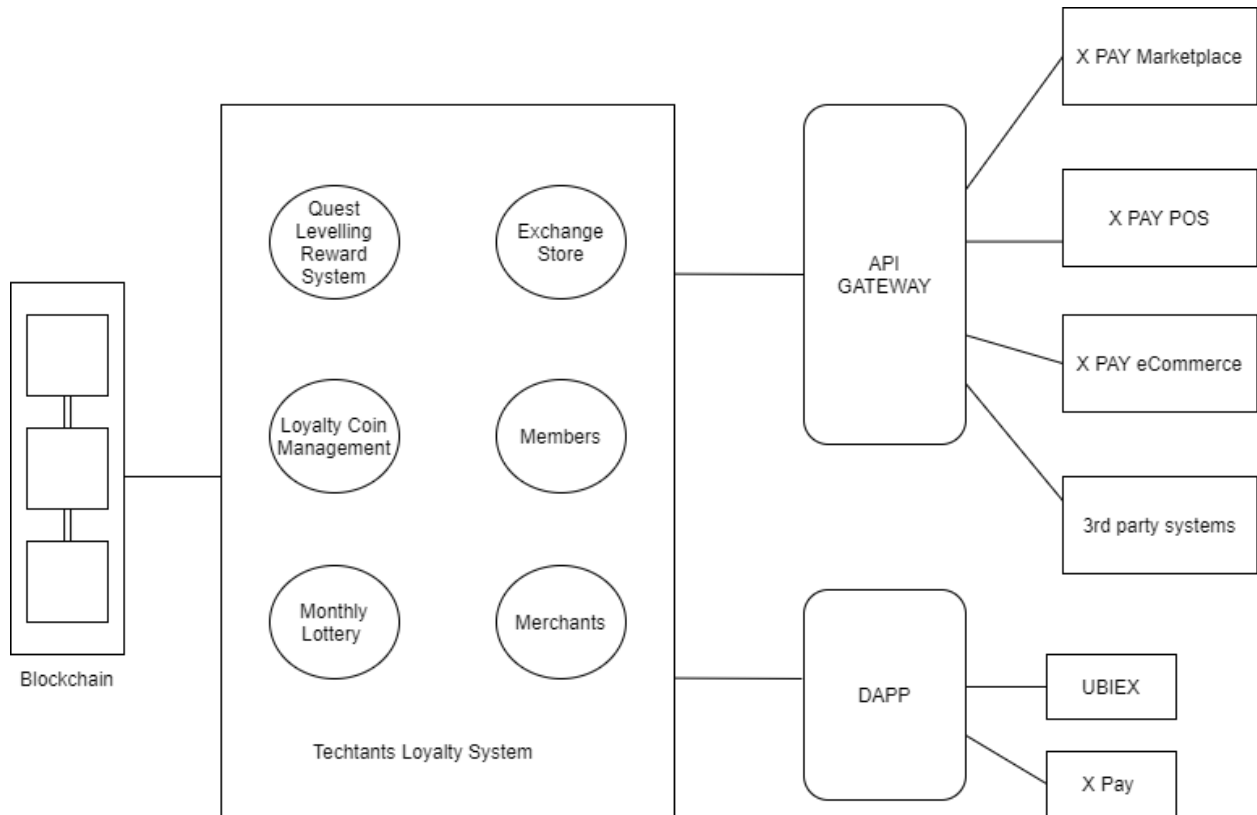


Table below shows the rating of several digital assets to be exchanged to Loyalty Coins.

	XIF	UBG	UBNK	USDT	...	UBI
Rating <i>(Eg: 1XIF = 10 Loyalty Coin)</i>	<i>(Eg: 10)</i>					

## Logical Architecture



Blockchain acts as a decentralized completely transparent ledger which is distributed among various nodes which helps in recording and validation of transactions recorded. Hence to keep the transactions discrete “Techtants Loyalty System” was created so that the transaction can be done in a confidential manner.

Loyalty system uses API gateways to validate the consumer’s information from the partners/vendors, and it helps in securing that information.

DAPP is used to enroll members to the loyalty system. (See *Implementation[Customers]* and *Implementation[Merchants]* for the register requirements). They can enroll themselves to start using the loyalty system in order to earn loyalty coins and get reward.

All the information related to customers, merchants and loyalty coins are kept in the loyalty system to keep the information private and also assures the safety of the merchants and the

customers. After which the data is encrypted within the loyalty system and is recorded in the blockchain.

Different modules are coded within the loyalty system. Access to different modules are provided by means of API Gateway/DAPP. The customers/merchants can have controlled access to the blockchain via the API Gateway using their specific nodes and their cryptographic identities, thus keeping the data secure. Customers/ Merchants can login to the DAPP to view various dashboards and account information.

The cryptographic network identities can be managed via network cards, which can be generated by the network admin. Each card defines the authorization and access profile of the cardholder. Different access can be granted and revoked by the network admin. The cards are required to be installed on the partner's client machines which runs the rest server to access the API Gateway.

## Features[Customers]

1. Levelling up loyalty system
  - a. Complete monthly task/mission
  - b. Level up after certain amount of experience gained
  - c. Gain EXP from top-up coin
  - d. Gain EXP by recycling rewards/vouchers
2. Reward rolling system
  - a. A set of rewards and vouchers to be rolled on each level up
  - b. Unwanted rewards/vouchers can be recycled to coin or EXP
3. Free tier member
  - a. Entitled to join monthly lottery
  - b. Get reward for each level up
  - c. Roll to get reward
  - d. Subscribe to golden member
  - e. Gain loyalty coin after level up
4. Gold tier member ( subscription fee TBD )
  - a. Annual subscription
  - b. Entitled to join monthly lottery
  - c. Get reward for each level up
  - d. Rewarded a free ticket of monthly lottery
  - e. Enjoy birthday month promotion
  - f. Roll to get reward
  - g. Entitled to buy EXP
  - h. Gain loyalty coin after level up
5. Loyalty Coin
  - a. Use to exchange reward (voucher / promotion code / product)
  - b. Earn coin by recycling reward rolled

## Features[Merchants]

1. Set cashback products
2. Levelling up loyalty system
  - a. Complete monthly task/mission
  - b. Level up after certain amount of experience gained
  - c. Gain EXP by recycling rewards/vouchers
3. Reward rolling system
  - a. A set of rewards and vouchers to be rolled on each level up
  - b. Unwanted rewards/vouchers can be recycled to coin or EXP
4. Free loyalty system
  - a. Entitled to join lottery
  - b. Get reward for each level up
  - c. Roll to get reward
  - d. Subscribe to golden member
  - e. Gain loyalty coin after level up
5. Golden merchant loyalty system
  - a. Annual subscription
  - b. Entitled to join lottery
  - c. Get reward for each level up
  - d. Rewarded a free ticket of monthly lottery
  - e. Roll to get reward
  - f. Entitled to purchase EXP
  - g. Entitled to join best merchant award
  - h. Entitled to join annual special promotion
  - i. Get free shipping reward one day per month
  - j. Decrease Platform Fee
6. Loyalty Coin
  - a. Use to exchange reward (voucher / promotion code / product)
  - b. Earn coin by recycling reward rolled / purchasing cashback products / level up

## Implementation[Customer]

1. Customers that bought **any items** in our marketplace/e-commerce are entitled to the free loyalty system we provided. Customers can also create their account here in the loyalty system first but they will need to complete their “Start-up mission” that is to complete at least one transaction in the marketplace/e-commerce to be entitled to the benefits of our loyalty system.
2. Levelling up Reward System
  - a. Each level requires 200 EXP to level up
  - b. Each level will provide a different set of rewards to free and subscribed users
  - c. A set of rewards including vouchers can be used in any X Pay platforms.
  - d. Levelling system will be able to view it under other X Pay platforms to prove the user's credibility.
  - e. There are monthly tasks to complete in order to gain EXP to level up your avatar.  
E.g. ideas:
    - i. Daily check in
    - ii. Buying products in e-commerce
    - iii. Buying products in marketplace
    - iv. Viewing articles/promotions/advertisements
    - v. Invite a friend to join
  - f. The main intention of marketplace and ecommerce is to encourage members to purchase products, so every monthly task will include purchasing at the X Pay Ecosystem.
    - i. The purchasing process will be divided into phases and members require to checkout 5 products in each phase.
    - ii. Members will be rewarded EXP upon completion of one phase.
    - iii. Example situation: One of the monthly tasks of Member A is to checkout 10 products successfully. This will separate the task into 2 phases. Once a phase is completed, Member A will be rewarded EXP and so on.
  - g. Members who recycle their reward from roll can in return gain EXP too. (See 5. *Rolling a set of benefits*)
3. Free member Customer
  - a. Entitled to join the lottery, but will need to purchase tickets using any coins in the X Pay ecosystem.

- b. Each level up will have **one(1)** roll chance, the set of rewards will change accordingly each month.
  - c. Free members can do monthly tasks to level up their avatar.
4. Gold member Customer
- a. Pay a subscription fee **/year** ( TBD price) to join.
  - b. Entitled to join the monthly lottery, each level will provide 1 free lottery ticket to join. Users can also purchase their own tickets to join.
  - c. Each level up will have **three(3)** roll chances, the set of rewards will change accordingly each month.
  - d. Users can also purchase experience using any of our X Pay coins to level up their avatar.
  - e. Gold members can also do monthly tasks and also the EXP rewarded is doubled.
  - f. Gold members will also have a Birthday Reward Month to enjoy a series of benefits.

	Free Tier Customer	Gold Tier Customer
Join Lottery	✓	✓
Purchase Experience	✓	✓
Number of Roll	1	3
Free Lottery Ticket	✗	✓
Double EXP reward	✗	✓
Birthday Reward	✗	✓
Double Loyalty Coin upon level up	✗	✓

*Table 2 Difference of benefits between Free Tier Customer and Gold Tier Customer*

5. Rolling a set of benefits(spin the wheel)
- a. Users can roll a reward from these possible options below(examples) after levelling up. *Note:Golden member can roll 3 times.*
    - i. Grand Prize - Iphone 12 ( \_\_ available)!limited
    - ii. Vouchers/Discounts
    - iii. Free products/Accessories



- iv. XIF coins
- v. Lottery ticket
- vi. Free shipping ticket
- vii. EXP Ticket
- viii. Another roll chance

b. Members can choose to recycle their reward from roll either in an exchange of EXP or Loyalty Coin. (See 2. *Leveling up Reward System* and 7. *Loyalty Coin* )

6. Monthly Lottery (!)

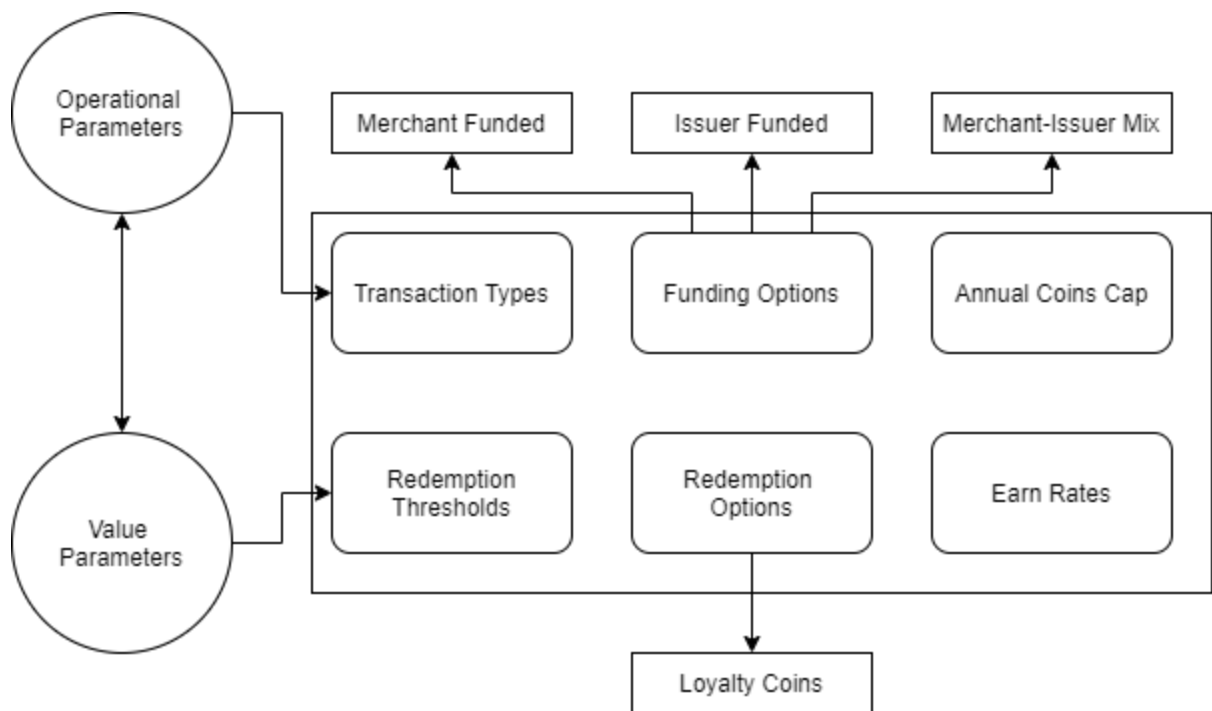
- a. Only **Gold Members** can freely get lottery tickets on each level up.
- b. Any type of member can join the lottery with a lottery ticket.
- c. Users can also purchase lottery tickets on our site.
- d. Grand Prizes are different every month. Example: a car.
- e. However, 50,000 tickets are required to start the lottery, if not the lottery will be cancelled and pushed forward to next month.

7. Loyalty Coin

- a. Reward Loyalty Coin can be obtained upon each level up or cash back upon recycling of reward rolled by members.
- b. Members can get coins upon each level up: Free Members get 50 Loyalty Coins whereas Golden Members get 100 Loyalty Coins.
- c. Members can earn Reward Loyalty Coins by recycling their reward from roll. (See 5. *Rolling a set of benefits*)
- d. Members can earn Loyalty Coins by purchasing products with cashback offered by merchants.
- e. Coins obtained can be used to exchange vouchers/rewards offered by merchants.

## Implementation[Merchants]

1. Merchants that create a store in either X Pay platform are entitled to register in the loyalty system as merchants to enjoy the free benefits of the system. Merchants can **buy** the Gold Merchant ( paying subscription fee) to enjoy the premium/prime version of our loyalty system.
2. All types of merchants are allowed to set their cashback products from time to time for customers. Upon purchasing the cashback products, customers will get cashback in Loyalty Coin.



3. Levelling up Reward System
  - a. Each level requires 200 EXP to level up.
  - b. Each level will provide a different set of rewards to free and subscribed merchants.
  - c. A set of rewards including vouchers can be used in any X Pay platforms.
  - d. Levelling system will be able to view it under other X Pay platforms to prove the merchant's credibility.
  - e. There are monthly tasks to complete in order to gain EXP to level up your avatar.  
E.g. ideas:

- i. Daily check in
    - ii. Selling amount of products in marketplace
    - iii. Providing amount of vouchers
    - iv. Viewing articles/promotions/advertisements
    - v. Invite a friend to join
  - f. To boost up sales, every monthly task of merchants will include sales target
    - i. The sales target will be divided into phases and members are required to hit every phase of the sales target.
    - ii. Members will be rewarded EXP upon completion of one phase.
    - iii. Example situation: One of the monthly tasks of Member A is to hit 50 items sold. This will separate the task into 5 phases. Once a phase is completed, Member A will be rewarded EXP and so on.
    - iv. Phases and rewarded EXP might vary between merchants and customers.
  - g. Members who recycle their reward from roll can in return gain EXP too. (See 5. *Rolling a set of benefits*)
4. Free tier Merchant
- a. Entitled to join the lottery, but will need to purchase tickets using any coins in the X Pay ecosystem.
  - b. Each level up will have **one(1)** roll chance, the set of rewards will change accordingly each month.
  - c. Free merchants can do monthly tasks to level up their avatar.
5. Gold tier Merchant
- a. Pay a subscription fee **/year** ( TBD price) to join.
  - b. Entitled to join the monthly lottery, each level will provide 1 free lottery ticket to join. Merchants can also purchase their own tickets to join.
  - c. Each level up will have **three(3)** roll chances, the set of rewards will change accordingly each month.
  - d. Merchants can also purchase experience using any of our X Pay coins to level up their avatar.
  - e. Gold merchants can also do monthly tasks and also the **EXP rewarded is doubled.**
  - f. Gold merchants will also have a series of **prime version benefits:**
    - i. **FAST, FREE Business Delivery**

1. Get FREE one day shipping delivery on each month as your choice. (Loyalty Day)
- ii. **Free Survey and Analytics Tools**
  1. Free tools to send surveys to your customers through email,web,SMS, POS Kiosk, and other integrated services. Uncover insights that inspire customer loyalty and drive business growth.
- iii. **Spend Visibility**
  1. Analyze spending patterns for insights that can help inform your budgeting decisions and buying policies.
- iv. **Decrease Platform Fee**
  1. Decrease the platform fee when any payment is successfully made by customers.
- v. **Decrease Referral Fee**
  1. Decrease the Referral fee for each item sold.
- vi. **Decrease Per-Item Selling Fee**
  1. Decrease the Per-Item Selling fee for every item successfully sold to customers

	Free Tier Merchant	Gold Tier Merchant
Join Lottery	✓	✓
Purchase Experience	✓	✓
Number of Roll	1	3
Free Lottery Ticket	✗	✓
Double EXP reward	✗	✓
Double Loyalty Coin upon level up	✗	✓
Fast, Free Business Delivery	✗	✓
Free Survey and Analytic Tools	✗	✓
Spend Visibility	✗	✓
Decrease imposed fees	✗	✓

*Table 3 Difference of benefits between Free Tier Merchant and Gold Tier Merchant*

6. Rolling a set of benefits(spin the wheel)

- a. Users can roll a reward from these possible options below(examples) after levelling up. *Note:Gold merchant can roll 3 times.*
  - i. Free referral fee for the week
  - ii. Free business shipping delivery for a limited amount of items
  - iii. XIF coins
  - iv. Lottery ticket
  - v. A 1/3/5/7/14 days promotion banner in specific product category
  - vi. EXP Ticket
  - vii. Another roll chance
- b. Members can choose to recycle their reward from roll either in an exchange of EXP or Reward Loyalty Coin. (See 2. Leveling up Reward System and 7. Reward Loyalty Coin )

7. Monthly Lottery (!)

- a. Only **Gold Merchants** can freely get lottery tickets on each level up.
- b. Any type of member can join the lottery with a lottery ticket.
- c. Users can also purchase lottery tickets on our site.
- d. Grand Prizes are different every month. Example: a car.
- e. However, 50,000 tickets are required to start the lottery, if not the lottery will be cancelled and pushed forward to next month.

8. Loyalty Coin

- a. Reward Loyalty Coin can be obtained upon each level up or cash back upon recycling of reward rolled by members.
- b. Members can get coins upon each level up: Free Members get 50 coins whereas Golden Members get 100 coins.
- c. Members can earn Reward Loyalty Coin by recycling their reward from roll. (See 5. Rolling a set of benefits)
- d. Coins obtained can be used to exchange vouchers/rewards.

## **Quest Lists [Customers]**

1. Daily check in
2. Buying products in e-commerce
3. Buying products in marketplace
4. Viewing articles/promotions/advertisements
5. Invite a friend to join
6. Write review for a purchased product
7. Successfully rated a product
8. Add amount of products into wishlist
9. Browse Merchant Selling Items
10. Visit Merchant Store
11. Use earned coin to redeem exp / voucher / product
12. Top-up xif / ubg coin in marketplace / e-commerce
13. Subscribe / like merchant pages
14. Share products to friends

## **Reward Lists [Customers]**

1. Grand Prize - Iphone 12 ( \_\_ available)!limited
2. Vouchers/Discounts
3. Free products/Accessories
4. XIF coins
5. Lottery ticket
6. Free shipping ticket
7. EXP Ticket
8. Another roll chance
9. Free 1 month gold member subscription
10. Double EXP for next task
11. Level ticket
12. Loyalty Coin
13. Double coin for next level up

## Quest Lists [Merchants]

1. Daily check in
2. Selling \_amount of products in marketplace
3. Providing \_amount of vouchers
4. Viewing articles/promotions/advertisements
5. Invite a friend to join
6. Gain \_amount of followers
7. Get \_amount of customer review
8. Upload \_amount of new products
9. Reply \_amount of customer reviews
10. Restock \_amount of products
11. Provide promotion on selected products
12. Provide \_amount of cash back products

## Reward Lists [Merchants]

1. Free referral fee for the week
2. Free business shipping delivery for a limited amount of items
3. XIF coins
4. Lottery ticket
5. A 1/3/5/7/14 days promotion banner in specific product category
6. EXP Ticket
7. Another roll chance
8. Grand Prize - Iphone 12 ( \_\_ available)!limited
9. Free Vouchers/Discounts to be released to customers
10. Double EXP for next task
11. Level ticket
12. One-day free advertisement
13. Loyalty Coin
14. Double coin for next level up

## Modules

### Loyalty Merchant Modules

- Merchant
- Merchant Type
- Merchant Level
- Merchant Experience
- Merchant Wallet
- Loyalty Coin
- Merchant Rewards

### Loyalty Customer Modules

- Customer
- Customer Type
- Customer Level
- Customer Experience
- Customer Wallet
- Loyalty Coin
- Customer Rewards

### Loyalty Coin Modules

- Loyalty Coin
- Coin Transfer

### Lottery Modules

- Lottery Ticket
- Lottery Prize

### Reward Modules

- Reward
- Vouchers
- Promotions
- Cashbacks
- Lottery Ticket
- Loyalty Coin



- Prize

#### Exchange Store Modules

- Exchange Items
- Exchange List
- Exchange Transfer

#### Conclusion

Loyalty programs are always beneficial to businesses as they help in attracting more buyers and retaining customers but implementation is where most of the businesses fail as creating loyalty programs is expensive and difficult to maintain, and are not utilized to their full extent.

Blockchain when combined with a loyalty engine can help bring customer delight, help in retaining new customers as well as providing benefits to returning customers. It also helps to increase the consumer base and increase revenue while saving cost and increasing security & transparency.

This loyalty program mainly focuses on quest levelling system and loyalty coin systems. Members get rewards based on how much effort they put to complete the task, gain EXP and earn coin. There are plenty of rewards according to different tier and level of members. Both customers and merchants can obtain their respective benefits from the loyalty system.