Clothing Identity Tracker

Mission

48 hour mission was to create blockchain based application for promoting public awareness about sustainable production of clothing industry.

48 hours goals

- Prefect the idea for general use;
- create user friendly application;
- create blockchain based tracking system;
- create crypto rewarding token;
- WIN FUTURE HACK 2018!

Problem

To make one cotton shirt, we need 2,700 liters of water - what one person drinks in two-and-a-half year and we globally made more than 33% of all fabric from cotton. Also vast amounts of clothing manufacturing waste water is contaminated with bleaches, solvents, acids, alkalis, dyes, inks, resins, softeners and fluorocarbons. More chemical pesticides are used for the growth of cotton than any other crop.Then there is the production of non-natural fibres from petrochemicals, which during production, releases nitrous oxide - a greenhouse gas is 310 times more damaging than carbon dioxide. Studies show that alarming numbers of tiny fibers from synthetic fabrics are making their way through water into aquatic animals and potentially to poison the food chain. But as much as 95% of clothes thrown away could have been re-worn or recycled people just don't know it.

Globalization means that your shirt likely traveled halfway around the world because of cheaper workforce in places like Bangladesh, Vietnam, Pakistan, and the Philippines. All of this products need to be shipped to and from factory and back to consumers in US or Europe. But just one ship can produce as much pollution as 50 million cars in just one year.

To conclude with quote from recipient of an environmental award Eileen Fisher: "The clothing industry is the second largest polluter in the world...second only to oil".

That's why we decided to choose SGD 12 (Ensure sustainable consumption and production patterns) and try to make a small positive awareness impact on this huge industry.

Our Solution

Our challenge was to create product that will promote sustainable practices of clothing production. We intended to control and track production process with blockchain technology and present results to end customer. We designed easy to use application and token reward system to encourage customer for buying sustainable developed products.

Eco-Certification brand

In order to successfully communicate our cause, we created a eco-certification brand to *encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle (SGD12, 12.6).* With this brand our partner companies will get positive buyer perception for selling sustainably produced items (clothes) and better public value. On the other hand consumers get mind blowing information about everyday products.

Production tracking

Blockchain technology, such as distributed ledgers, provides an easy way to track and certify the production process from raw material to final products.

To track clothes we will assign each item their own QR code with blockchain address. Every step of the manufacturing process will be written on blockchain simply by scanning QR code. All the data will be collected, processed through rating algorithm and present to customer in user friendly mobile application.

Mobile application

To save information on blockchain, we created application which assign identity for every piece of clothing behind our brand. Clothes will have their own QR code with blockchain address where will be saved all informations about the product, manufacturing process, ownership and instructions of usage. Customer will be able to scan QR code, open the application on their mobile device and read desired informations about chosen product.
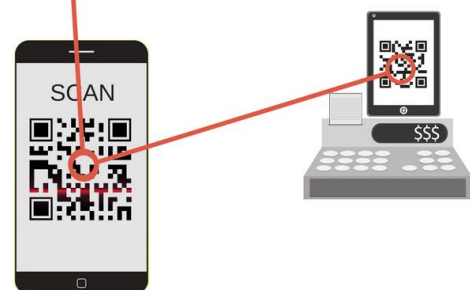
Additional function of application is to save an item into blockchain wallet (digital closed) with simple process of scanning two QR codes. First code from clothes and second code provided by seller to check authenticity of buying process.

STEP 1: Scan QR code on producti you want to purchase

STEP 2: Scan QR code on the register

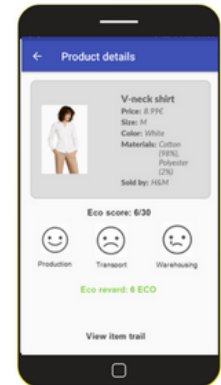**STEP 3**: When the item is yours you can claim your reward in tokens.

SCAN

Rating algorithm

Applications algorithms calculate rating from collected data of different parameters to create environmental score for air pollution, water pollution and possibility for recycling. Algorithms will use data from:

- Factory certificates - to calculate air and water pollution
- Material certificates - to calculate air and water pollution and also possibility for recycling
- Transport - to calculate air and water pollution

Rating scale is between 1 (lowest grade) and 10 (highest grade). Application also offer infographic demonstration of scale for better user experience.

CIT loyalty token

We expect that better rating products will be more expensive because of production complexity with quality materials in better working conditions. To address higher price issue we intend to create CIT (Clothing identity token). Token primary function is customer reward system, like loyalty card. Customer will earn CIT tokens with every purchase of products behind our brand. Quantity of reward tokens will depend on rating of sustainable product. Highest rating of product, more tokens. We also want people to recycle and earn tokens by doing that. Customer will be able to bring old clothes to recycle drop-off and simply scan QR code on their clothes and on drop off box and will be rewarded with additional tokens on their mobile application.

All collected tokens will be stored on customer token account and could be easily exchanged for store discounts with our eco certificate brand partners.

Vision

Create product which will help our partner companies (producers, store owners, brands) to build eco friendly partner networks and promote sustainable practices of clothing production. Give end customers full information about product environmental issues, so they will be able to make better decisions on top of that.

How to share our idea

We would be promoting our movement throughout social media platforms and by connecting with endorsers from all around the world. Because our vision is simple und understable it would not be hard to spread around the world. Simple green smudge on a piece of clothing would tell its story and the idea behind.

Our idea in the future

We hope to be able to find financial means to continue to develop our product. Because we want to upgrade our rating algorithm to calculate more interesting and educational contents.
For example to show in application (under rating instead of smiley face) how many water is used to create one cotton t-shirt.
With small changes we could also use application on others markets to track environmental impact of products.
We really hope we will see this product grow.