Legit.

Prince Patel, Andrew Min, Jacqueline Henry & Henry Wadsworth

$1.77 Trillion

An International Chamber of Commerce report estimates the total value of counterfeit and pirated goods globally could be as high as $1.77 Trillion.
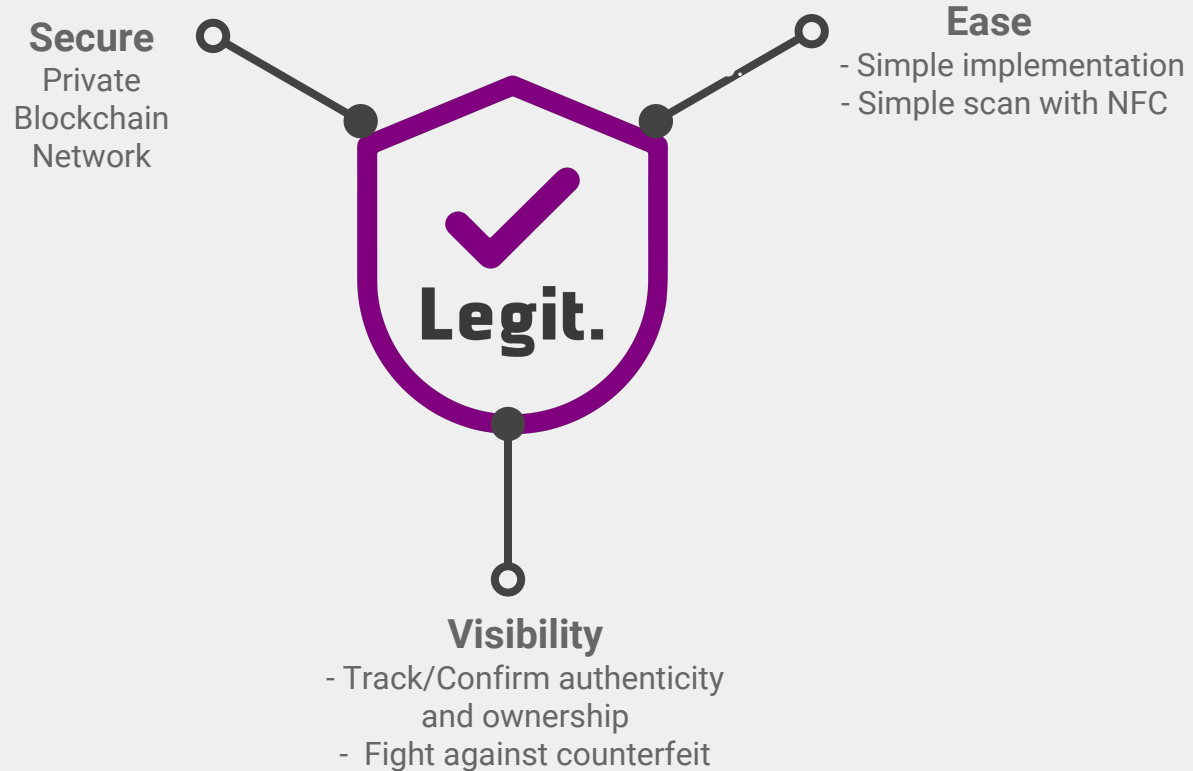
Problem Statement

- The counterfeit industry is hurting:
  - The **exclusivity** of luxury brands
  - The **sales** of these brands
  - The **value** of their products
  - The **resale market** sales credibility
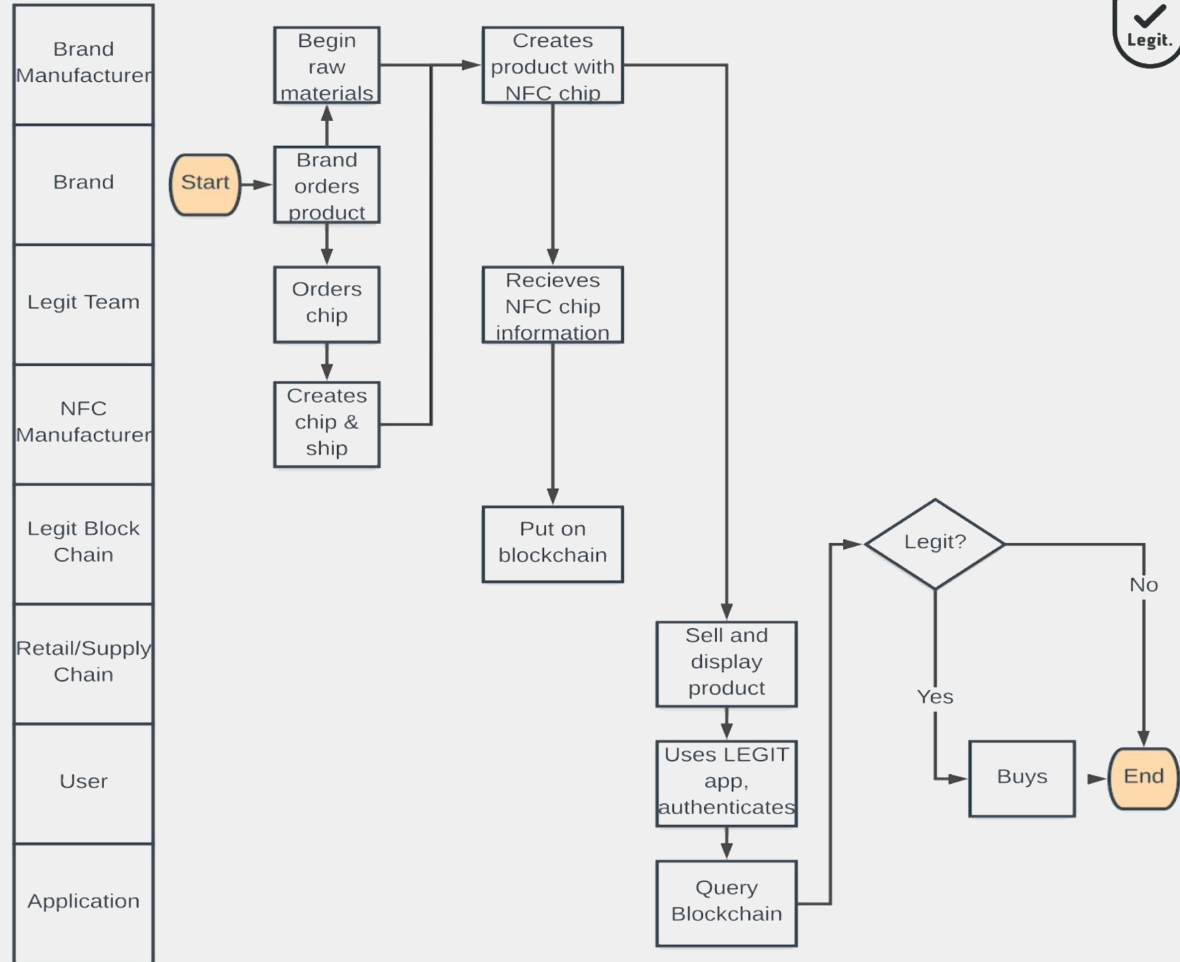 - The **customer's** trust in products' authenticity
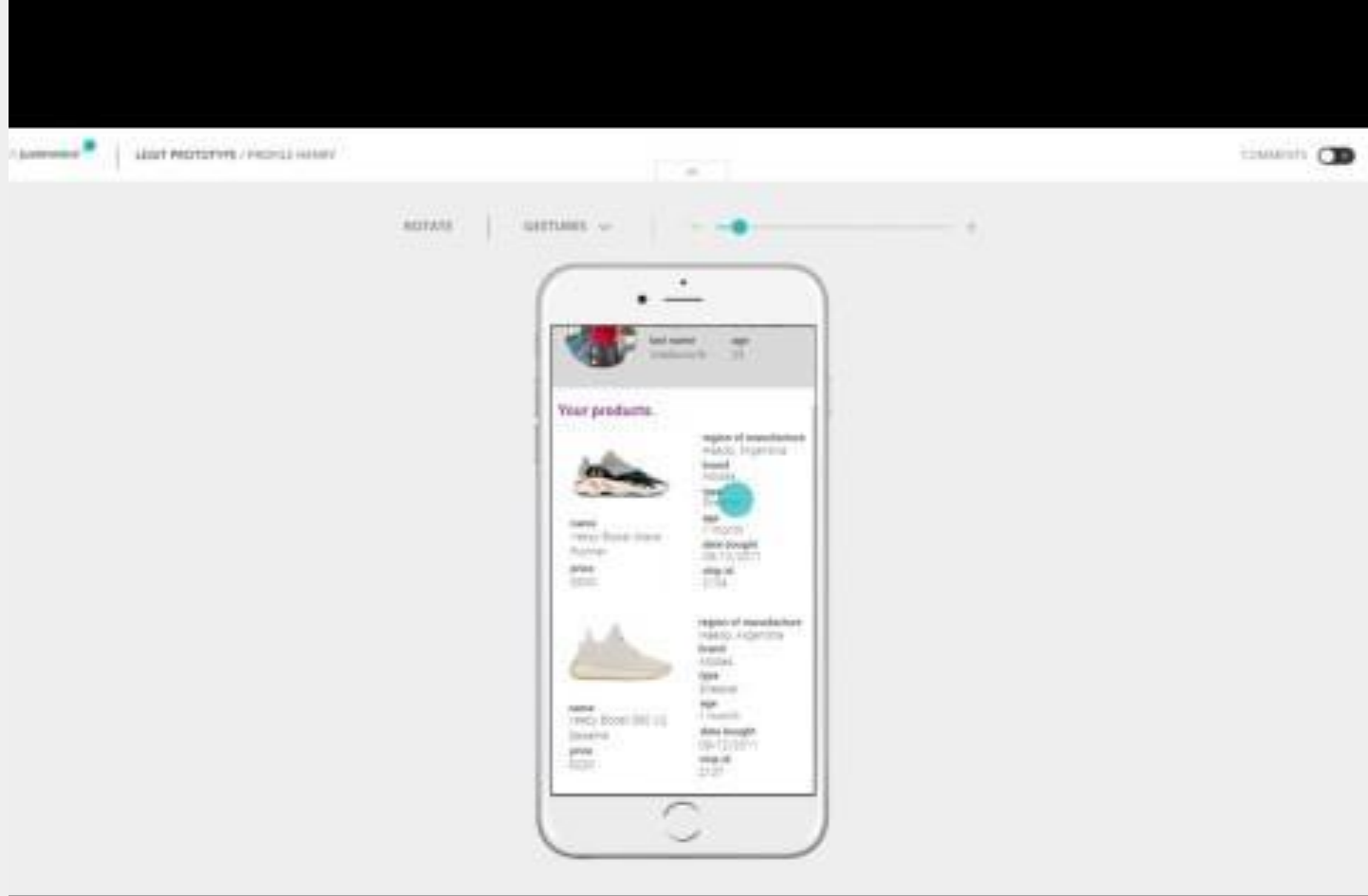
What is Legit?

Legit is a blockchain enabled product authenticity tracking and services platform that uses NFC chips that can be scanned by devices.

Secure
Private
Blockchain
Network

Ease
- Simple implementation
- Simple scan with NFC

Legit.

Visibility
- Track/Confirm authenticity
and ownership
- Fight against counterfeit

Process Map

Prototype

Data Model

customer_id
age
first_name
last_name
dob
email

customerproduct_id
customer_id
chip_id
name
type
age
date_bought
price
quantity
brand_id

chip_id
serial_number
blockchain_number
type
memory
location
orderchip_id

manufacturer_id
address
city
state
zip_code
type

brand_id
type
brand_name
phone_number
manufacturer_id

orderchip_id
brand_id
quantity
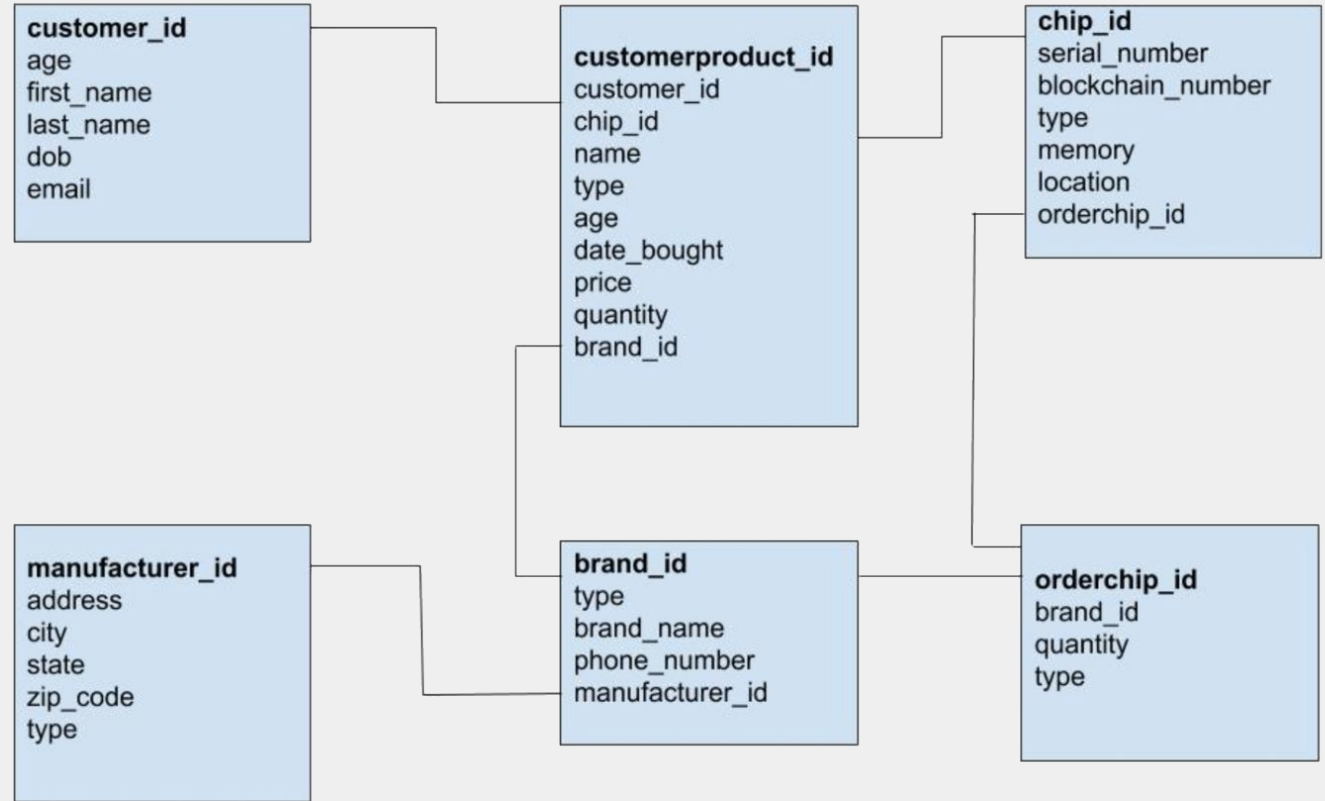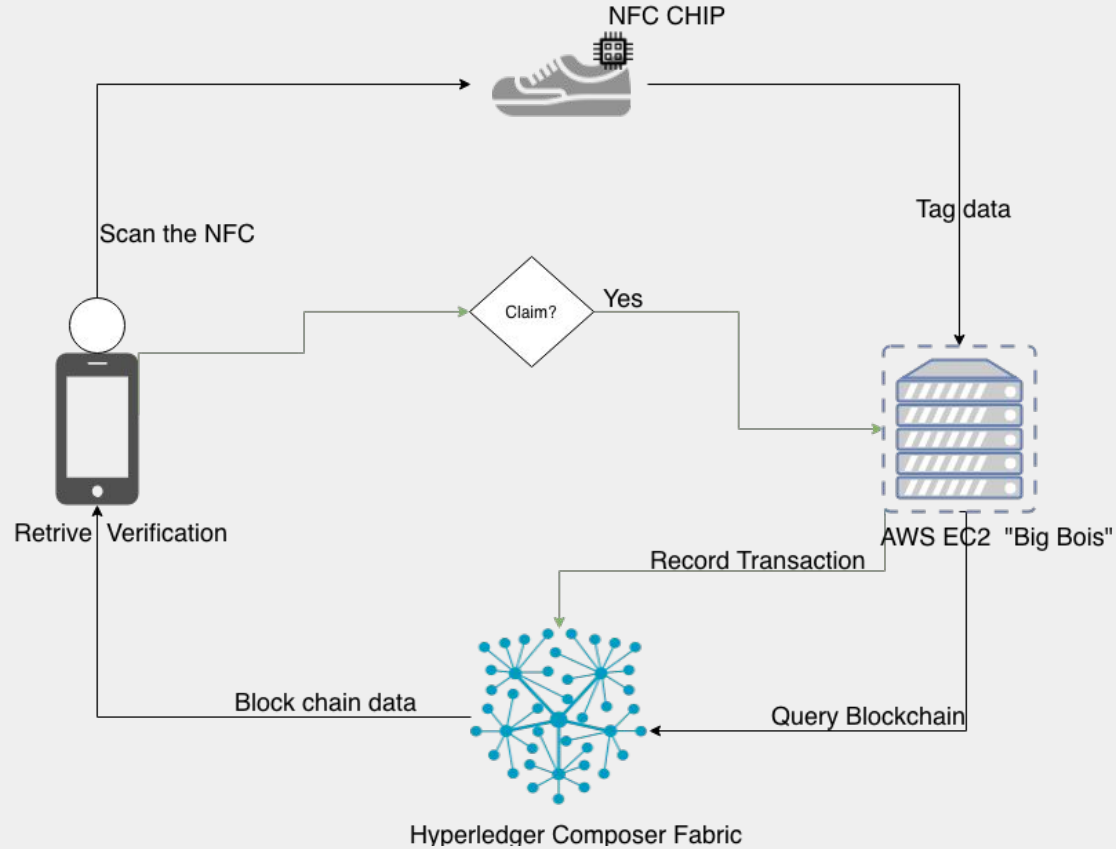type

System Architecture

Competitive Analysis

- New Products through brands
  - Luxury Brands
    - i.e.: Louis Vuitton, Adidas, Rolex, Hennessy

- Owned/Current products through partners
  - GOAT
  - Pawn Shops
  - Antique Stores
  - Second Hand Sellers

Business Case

- Luxury Brands are losing **$30.3 Billion annually**
- 55% of online marketplace sellers have a **profit margin of above 20%**
- 49% of the resale market make up apparel - totaling **$20 Billion**
- **Brand Exclusivity, Sustained Brand Value**
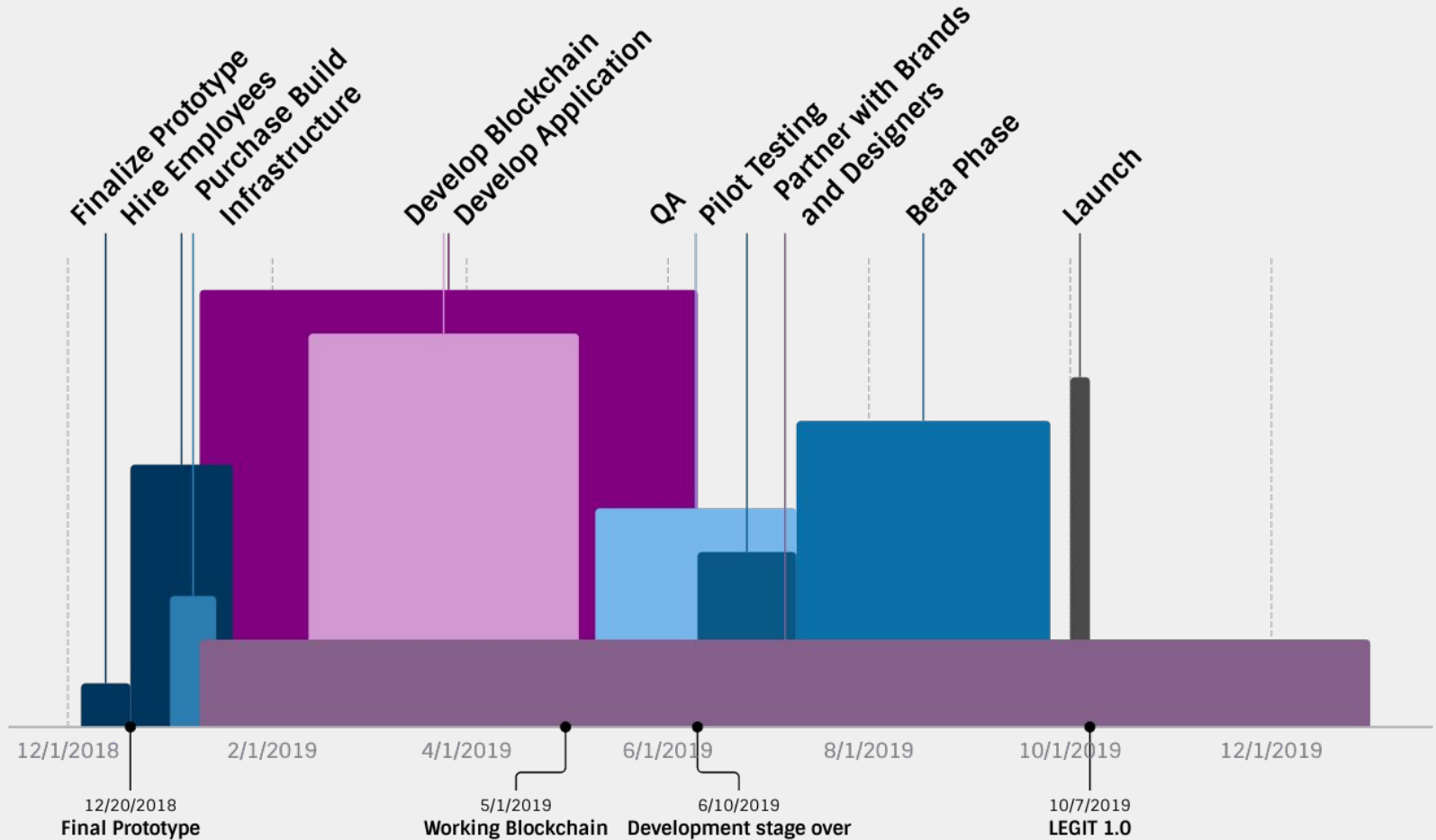- **Reduced Depreciation**

Financial Analysis

	Year 1	Year 2	Year 3	Assumptions
Gross Income				
Revenue	$792,000	$1,584,000	$3,168,000	0.05% of Luxury brand item's value. Could add on tier system to charge less percentage the higher the cost of the item. Air jordans averaged $175, 0.05% is $0.88.
Other income sources				Goat, authentication company estimates $3 million revenue, 157 employees
				Seal: raised $8,685,000 to fund the company
				NFC tags cost roughly 10 cents each at scale
Total Income	$792,000	$1,584,000	$3,168,000	Hyperledgers are normally used for blockchain because they have mutliple nodes
			$5,544,000	
Expenses				
NFC Chip Manufacturing	$90,000	$180,000	$360,000	Assuming luxury brands sell 300,000 items per launch weekend using Rare Air Jordans as reference, we will also assume that the first year we will get 3 out of 12 luxury brands to give us a shot on one of their releases and that this will grow exponentially
Sales, marketing & advertising	$396,000	$792,000	$792,000	50% of sales for the first two years and then will maintain the advertisement costs starting year 3; Website, swag, mktg stuff
Salaries, wages & taxes	$400,720	$480,720	$480,720	Current Legit team + Outsourced Application Developers
Hyperledger servers	$49,000	$98,000	$196,000	AWS EC2 BIG BOIS + Hyper ledger composer fabric
Other expenses	$20,000	$40,000	$60,000	Office supplies, client meetings, office rent, etc.
Total Expenses	$955,720	$1,590,720	$1,888,720	
			$4,435,160	
Net Income	**-$163,720**	**-$6,720**	**$1,279,280**	
3 year total Net Income			**$1,108,840**	

Legit.

Labor Costs

Job description	Hourly Rate	Estimated Hours	Total Costs	Reference Source(s) for Rate
General developer	$27.46	2080	$57,116.80	https://www.payscale.com/research/US/Job=Software_Developer/Salary
Mobile application developer	$23.96	2080	$49,836.80	https://www.payscale.com/research/US/Job=Mobile_Applications_Developer/Salary
Project Manager	$45.08	2080	$93,766.40	https://www.payscale.com/research/US/Job=Project_Manager%2c_Information_Technology_(IT)/Salary
Founders			$200,000	

Implementation Roadmap Year 1

Finalize Prototype
Hire Employees
Purchase Build Infrastructure
Develop Blockchain
Develop Application
QA
Pilot Testing
Partner with Brands and Designers
Beta Phase
Launch

12/1/2018   2/1/2019   4/1/2019   6/1/2019   8/1/2019   10/1/2019   12/1/2019

12/20/2018
Final Prototype

5/1/2019
Working Blockchain

6/10/2019
Development stage over

10/7/2019
LEGIT 1.0

Agile App Development Map

01/10

Scrum meeting I
Scrum Meeting II

Scrum meeting III
Scrum Meeting IV

Scrum meeting V
Scrum Meeting VI

Scrum meeting VII
Scrum Meeting VIII

Scrum meeting IX
Scrum Meeting X

10/1
Launch

06/10

Sprint I 2/10

- Sign up/Sign in
- Finalize Data model
- Integrate data collection with server
- Profile page
- Finalized Architecture Integration
- Full app wireframe
- Test achieved ST goals

Sprint II 3/10

- Revisit Business Requirements
- Finished Database structure
- Start creating Blockchain on Hyperledger Composer Fabric
- Build backend authenticator for LEGIT team
- Test achieved ST goals

Sprint III 4/10

- Revisit Business Requirements
- Finish Blockchain development
- Block Chain Query
- Query Integration
- NFC registration
- Test achieved ST goals

Sprint IV 5/10

- Revisit Business Requirements
- Integrate Application with Blockchain
- Add iterations
- Test achieved ST goals

Sprint V 6/10

- Revisit Business Requirements
- Aesthetics UI
- Uniform and consistency
- Demo Ready
- Working Application
- Test achieved ST goals

Questions? Comments? Concerns? Suggestions?

Works Cited

- https://www.researchandmarkets.com/reports/4438394/global-brand-counterfeiting-report-2018
- http://www.oecd.org/industry/global-trade-in-fake-goods-worth-nearly-half-a-trillion-dollars-a-year.htm
- https://www.statista.com/statistics/730675/reasons-us-consumers-sold-used-items/
- https://www.webretailer.com/lean-commerce/statistics-marketplace-seller-survey/
- https://www.thredup.com/resale
- Global Chamber of commerce