## Philter: A Product Validator

Software Design and Requirement Specification



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## Contents

Li	st of	Figures	i
Li	st of	Tables	iii
1	Req	uirement Specification	1
	1.1	Functional Requirement	1
	1.2	Non-functional Requirement	2
2	Desi	gn specification	3
	2.1	Wireframes	3
	2.2	Use case	10
		2.2.1 Add Product	11
		2.2.2 Track Product	11
		2.2.3 Add Distributor	12
		2.2.4 QR Scanner	12
	2.3	Activity Diagram	13
		2.3.1 Manufacturer Flow	13
		2.3.2 User Flow	14
	2.4	State Diagram	15
		2.4.1 Manufacturer Flow	15
		2.4.2 User Flow	16
	2.5	Sequence Diagram	17
		2.5.1 Manufacturer Flow	17
		2.5.2 User Flow	18
	2.6	Collaboration Diagram	19
		2.6.1 Manufacture Flow	19
		2.6.2 User Flow	19
	2.7	Class Diagram	20
	2.8	Component Diagram	21
		2.8.1 Manufacturer Flow	21
		2.8.2 User Flow	22
	2.9	Deployment Diagram	22
	2.10	ER Diagram	

# List of Figures

2.1	Connect to metamask
2.2	Manufacture Panel
2.3	Product
2.4	Add Product
2.5	Track Product
2.6	Distributor
2.7	Track Distributor
2.8	Add Distributor
2.9	Analytics
2.10	Account
2.11	Philter
2.12	Fake Product
2.13	Real Product
2.14	FeedBack Form
2.15	WholeSystem
2.16	Activity Diagram
2.17	Activity Diagram
2.18	State Diagram
2.19	State Diagram
2.20	Sequence Diagram
2.21	Sequence Diagram
2.22	Collaboration Diagram
2.23	Collaboration Diagram
2.24	Class Diagram
2.25	Component Diagram
2.26	Component Diagram
2.27	Deployment Diagram
2.28	ER Diagram 23

## List of Tables

1.1	Functional Req	1
1.2	Non-Functional Requirement	2
2.1	Add Product	11
2.2	Track Product	11
2.3	Add Distributor	12
2.4	QR scanner	12

## Chapter 1

## Requirement Specification

## 1.1 Functional Requirement

Table 1.1: Functional Req

ID	Name	Description	Priority	
		The web has to be connected to		
FR-01-01	metamask Connection	Metamask otherwise it will won't	1	
		work at all		
FR-01-02	Authentication	Manufacture must be authenticated	1	
1.10-01-02		through metamask	T	
FR-02-01	Add Product	The manufacture will add the	1	
111-02-01		product		
FR-02-01	Add Distributor	The Manufacture will Add	1	
1.11-02-01		Distributor		
FR-02-03	Analysis	The Manufacture analyse the	1	
111-02-05		product fakeness	1	
FR-02-04	Track Product	The manufacture can track the product	2	
111-02-04		and check the history of product		
FR-02-04	Track Distributor	The Manufacture can track the	2	
110-02-04		distributor and check the distributor		
FR-03-01	Security	The Main purpose is the security	1	
11000-01		of the system	1	

## 1.2 Non-functional Requirement

Table 1.2: Non-Functional Requirement

ID	Name Description		Priority
NR-01-01	Modes	The user can choose between light dark modes.	2
NR-01-02	Availability	The system is available to assigned user all the time.	1
NR-01-03	Scalability	The system can be scaled whenever need arrives.	1
NR-01-04	Performance	Stronger the internet connection stronger is the performance of the system. System will also be optimized for slower connection.	3
NR-02-01	Security	The hacker can hack the web app but can never retrieve the systems data at any cost.	2

## Chapter 2

## Design specification

## 2.1 Wireframes



FIGURE 2.1: Connect to metamask

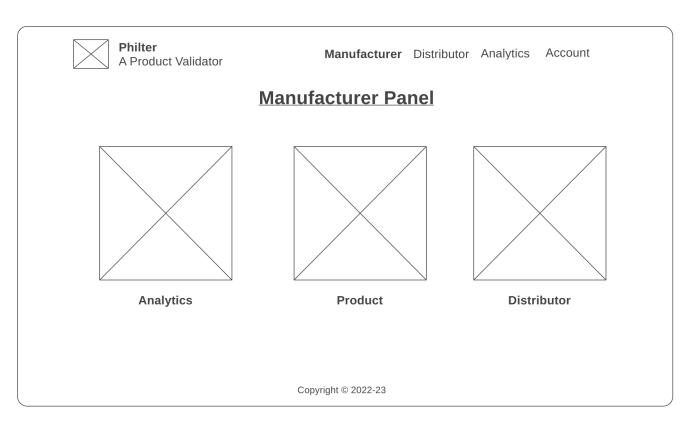


FIGURE 2.2: Manufacture Panel

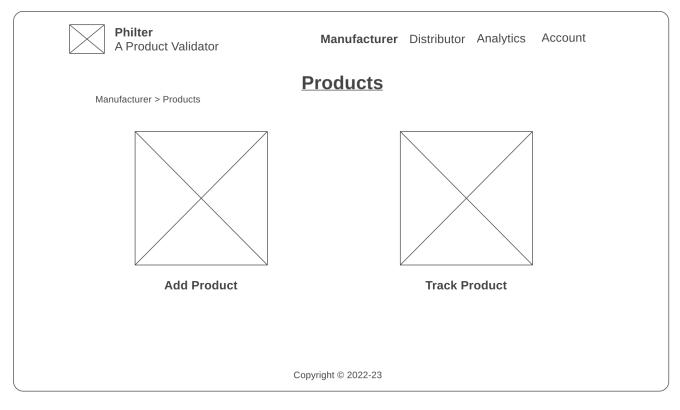


FIGURE 2.3: Product

Philter A Product Validator	Manufacturer Distributor Analytics Account
Manufacturer > Products > Add Product	<u>Products</u>
Company Name:	MFG Date:
Product Title:	Exp. Date:
Description:	Batch # :
Information	
Distributor	Product Qunatity Total Cost: 000 PKR
Single Item Cost	Reset Create
	Copyright © 2022-23

FIGURE 2.4: Add Product



FIGURE 2.5: Track Product

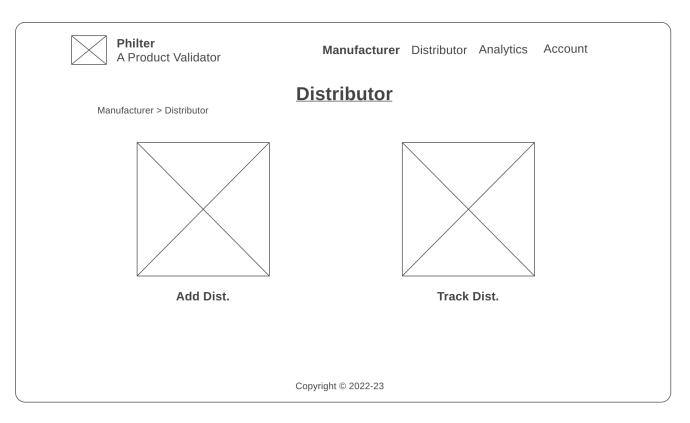


Figure 2.6: Distributor

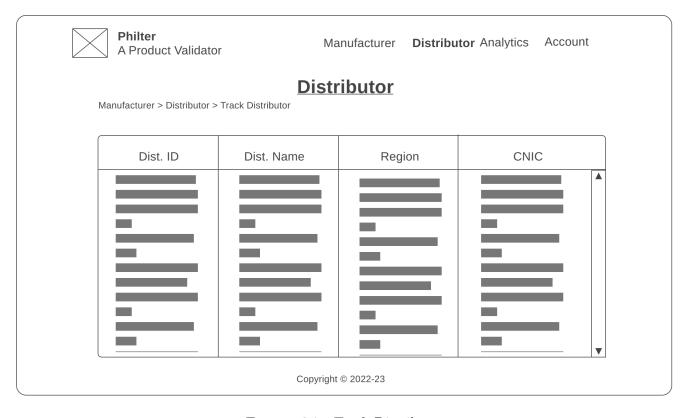


FIGURE 2.7: Track Distributor

Philter A Product Valid	ator	Manufacturer <b>Distributor</b>	Analytics	Account
Manufacturer > Distribut		stributor		
Dist. Name:		Region:		
CNIC:	I	Address:		
ID:		Age:		
			Reset	Add
	Сору	right © 2022-23		

FIGURE 2.8: Add Distributor

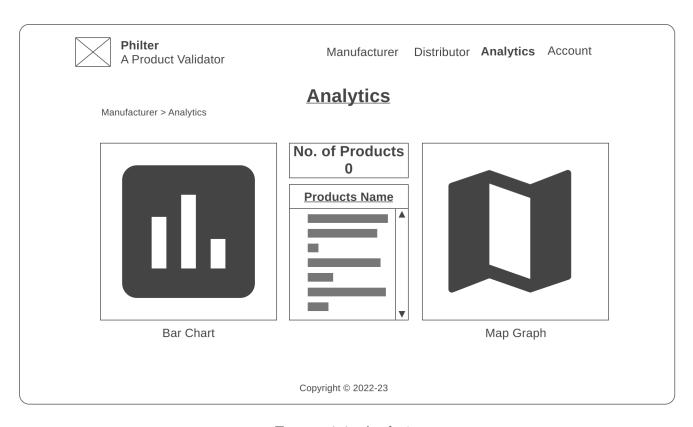


Figure 2.9: Analytics

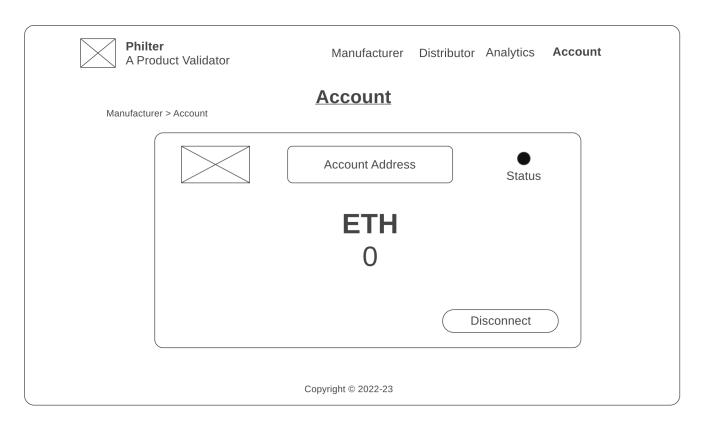


FIGURE 2.10: Account

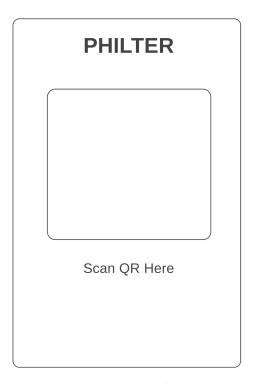


FIGURE 2.11: Philter



FIGURE 2.12: Fake Product

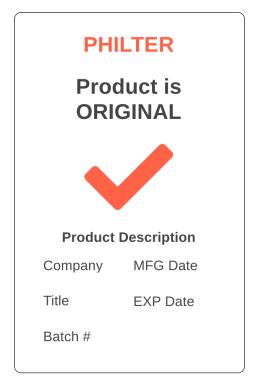


FIGURE 2.13: Real Product

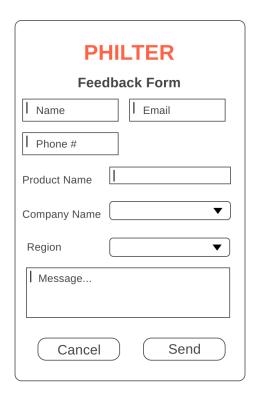


FIGURE 2.14: FeedBack Form

## 2.2 Use case

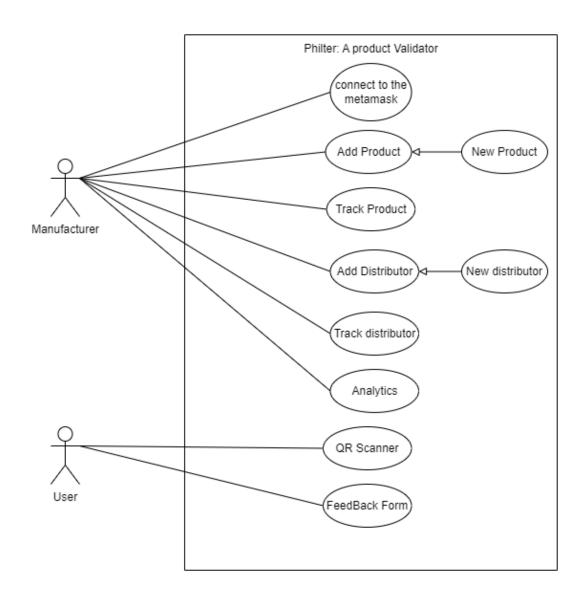


FIGURE 2.15: WholeSystem

## 2.2.1 Add Product

Table 2.1: Add Product

Use Case	Add Product
ID	1
Use Case Description	The user will add product details
Ose Case Description	and quantities to create the QR codes.
Actors	Manufacturer.
Trigger	Add product panel will open.
Pre-Condition	The system must be connected to MetaMask.
Post-Condition	The Product's QR will be generated
Main Scenario	Click on add product And All the credientials
Extension	For Missing Field , the
Extension	system will show error

#### 2.2.2 Track Product

Table 2.2: Track Product

Use Case	Track Product
ID	2
Use Case Description	The user will be able to check which distributor
Ose Case Description	has been added.
Actors	Manufacturer.
Trigger	The distributor history will be opened.
Pre-Condition	The system must be connected to MetaMask.
Post-Condition	The complete distributors record will be shown.
Main Scenario	Click The track to check which product is add
Walli Scenario	in the list
Extension	It search is invalid then it show error

## 2.2.3 Add Distributor

Table 2.3: Add Distributor

Use Case	Add Distributor
ID	3
Use Case Description	The user will add distributors who will distribute
Ose Case Description	the products.
Actors	Manufacturer.
Trigger	Add distributor panel will open.
Pre-Condition	The system must be connected to MetaMask.
Post-Condition	A new distributor will be added.
Main Scenario	Manufacture can add distributor by click on add
Walli Scenario	distributor.
Extension	If field is miss then it will show error message

## 2.2.4 QR Scanner

Table 2.4: QR scanner

Use Case	QR Scanner
ID	4
Use Case Description	The consumer will open the app and scan
Ose Case Description	the product's QR code for validation.
Actors	Consumer.
Trigger	QR code scanner will be open.
Pre-Condition	The system must be connected to internet.
Post-Condition	The product's validation message will
1 ost-Condition	be shown.
Main Scenario	click on scanner(philter) to scan the product
Extension	If product is fake it will show error

## 2.3 Activity Diagram

#### 2.3.1 Manufacturer Flow

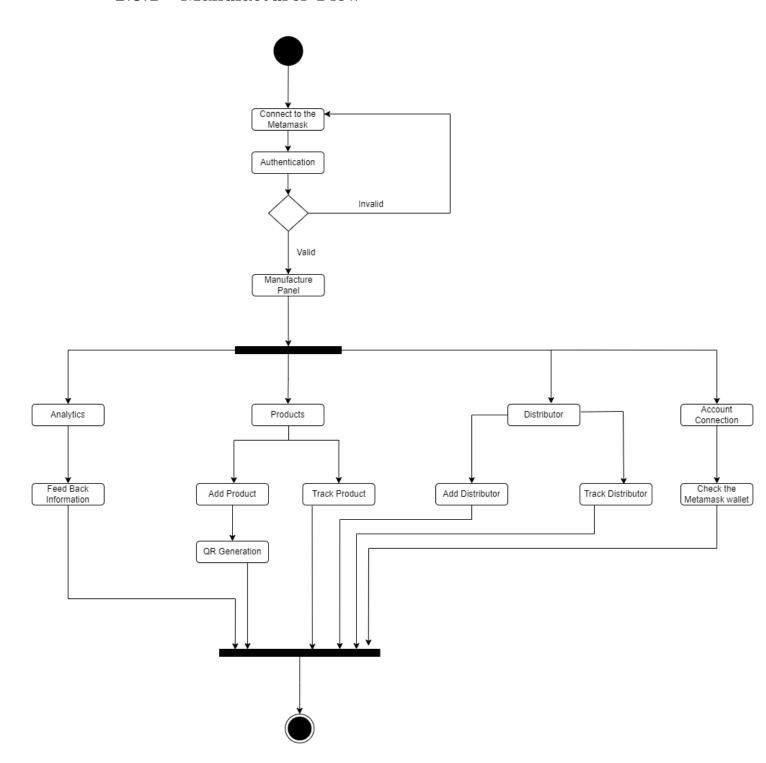


Figure 2.16: Activity Diagram

#### 2.3.2 User Flow

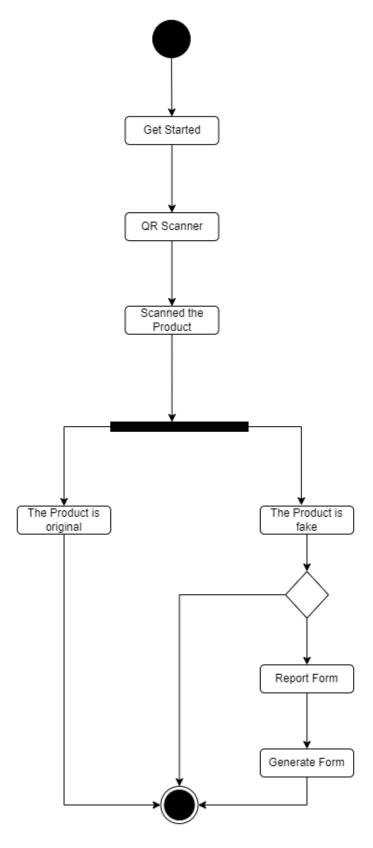


FIGURE 2.17: Activity Diagram

## 2.4 State Diagram

#### 2.4.1 Manufacturer Flow

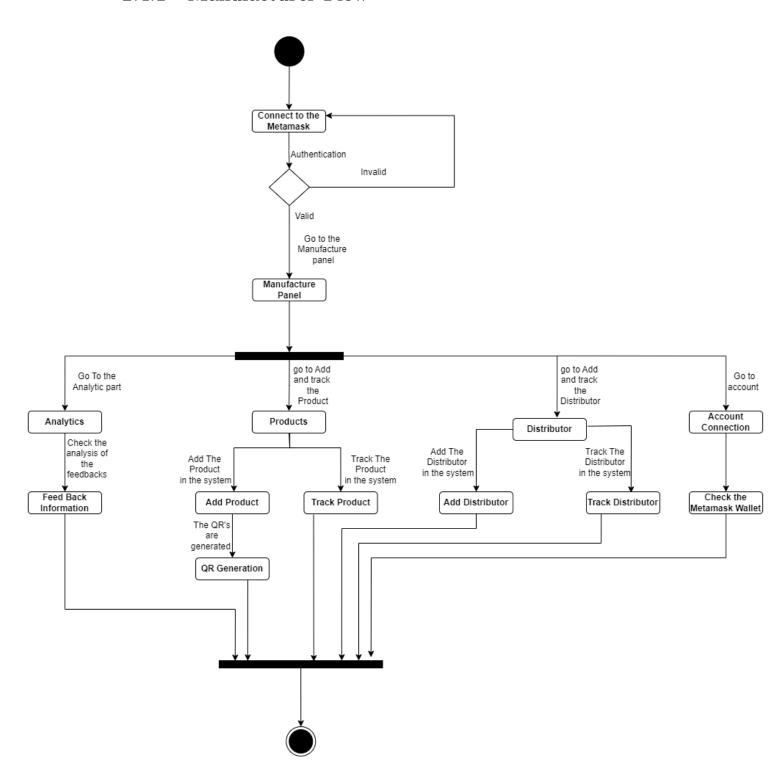


FIGURE 2.18: State Diagram

#### 2.4.2 User Flow

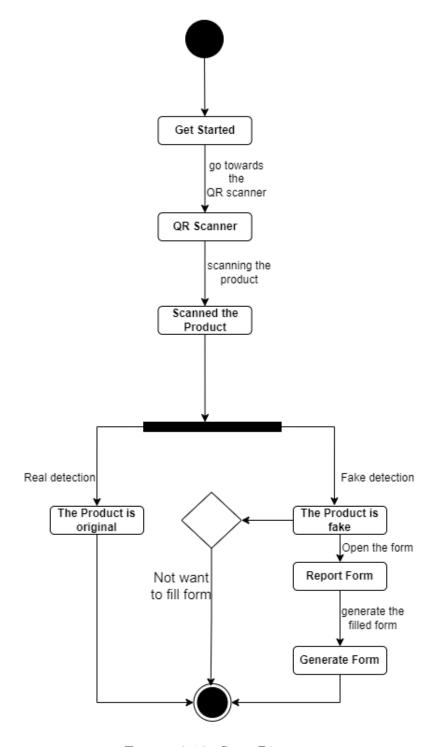


FIGURE 2.19: State Diagram

## 2.5 Sequence Diagram

#### 2.5.1 Manufacturer Flow

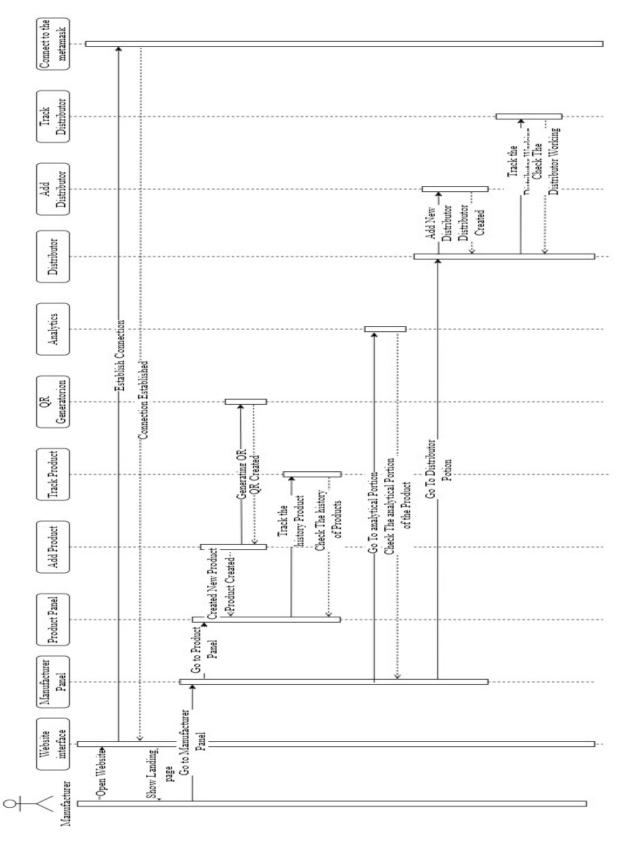


FIGURE 2.20: Sequence Diagram

## 2.5.2 User Flow

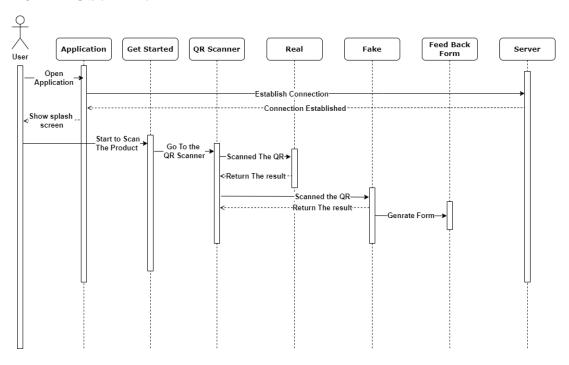


FIGURE 2.21: Sequence Diagram

## 2.6 Collaboration Diagram

#### 2.6.1 Manufacture Flow

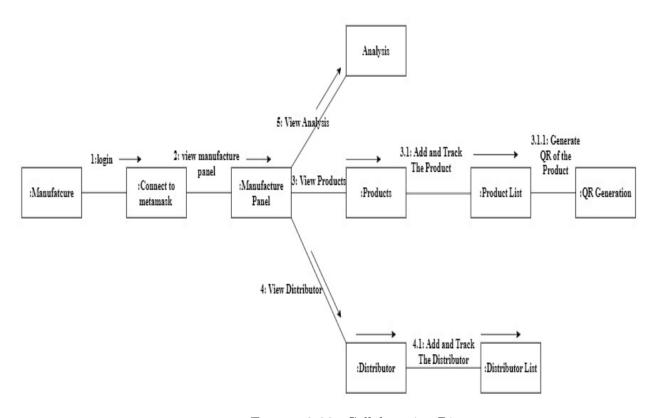


Figure 2.22: Collaboration Diagram

#### 2.6.2 User Flow

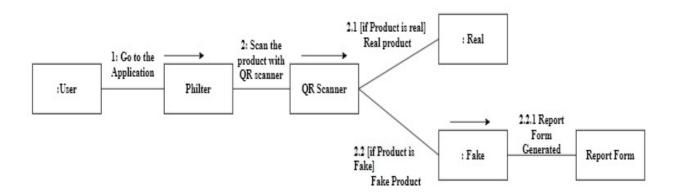


Figure 2.23: Collaboration Diagram

## 2.7 Class Diagram

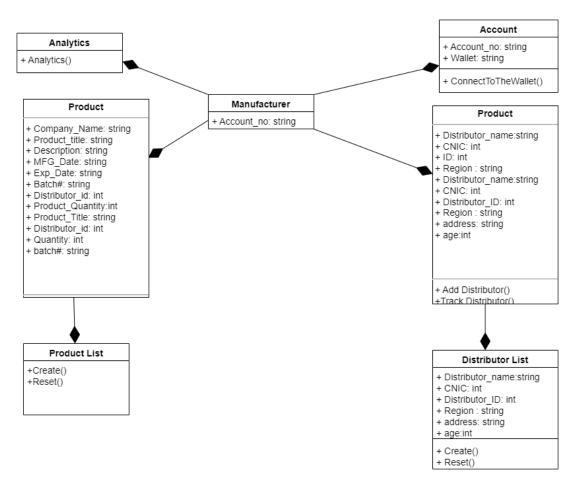


Figure 2.24: Class Diagram

## 2.8 Component Diagram

#### 2.8.1 Manufacturer Flow

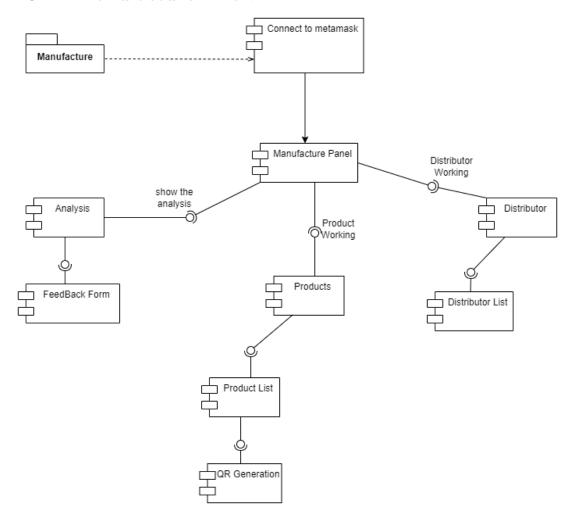


FIGURE 2.25: Component Diagram

#### 2.8.2 User Flow

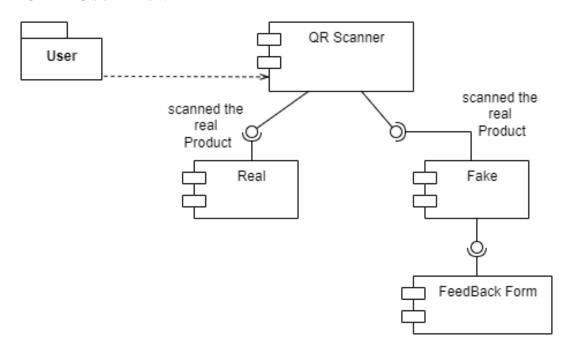


FIGURE 2.26: Component Diagram

## 2.9 Deployment Diagram

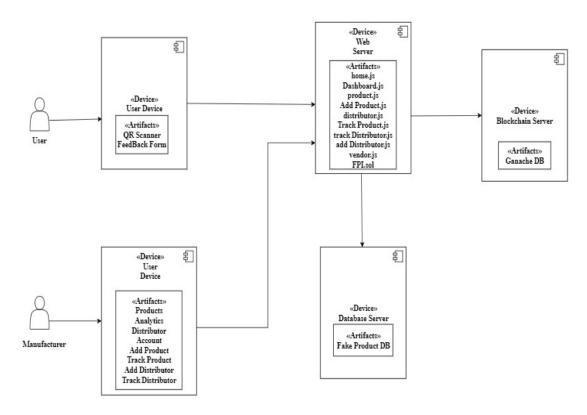


Figure 2.27: Deployment Diagram

## 2.10 ER Diagram

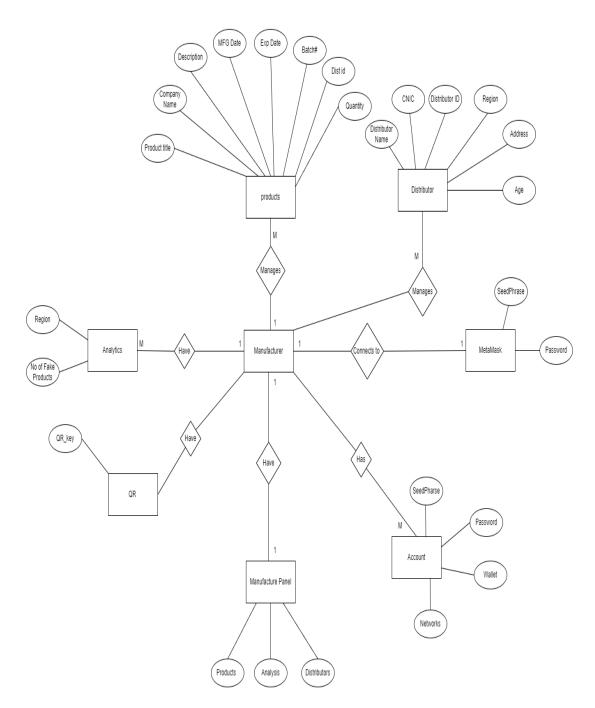


FIGURE 2.28: ER Diagram