**Decentralized Manufacturing Unit**

**Member 1:**

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**DMU-Dapp interaction:**

After deploying the smart contract and starting the Dapp, we get the below screen

A picture containing graphical user interface

Description automatically generated

* The buttons on the above screen represents the functions and constants in the smart contract.
* When the smart contract is deployed, the account 1 on Ganache is the deployer and the total number of tokens on the network are 90000 DMU.
* Before using the DMU-Dapp, the manufacturing agents and retailers must register using the Register button by giving 1 as input for manufacturing agents and 2 as input for retailers.
* The deployer has the right to give approval to both the manufacturing agents and the retailers and when approved by specifying the address and pressing the ApproveTo button, the manufacturing agents and retailers get 1000 DMU each.
* Below is the screenshot showing a transaction occurring between a retailer and a manufacturing agent.

0xCcea647d09EbCC3D1EE096C8077d06aea3411ffC – Manufacturing agent

0xa66Acd51e7C6C843DF2d0D22607f95e880CBD547- Retailer

A screenshot of a computer

Description automatically generated with medium confidence

Timeline

Description automatically generated

* Below is the screenshot of a retailer returning products using returnProduct button. He/she can also specify the number of items to be returned.

Timeline

Description automatically generated

Each product costs 100 DMU and as the retailer had bought 10 products, now he has returned 5 of then using the returnProduct button. He also gets back 500 DMU for the 5 products.

* Below are the screenshots of a manufacturing agent rewarding the retailer for spending more than 1000 DMU using the reward button where he/she also specifies the retailer address.

A screenshot of a computer

Description automatically generated with medium confidence

Graphical user interface

Description automatically generated

* Below is the screenshot to check availability of products at a particular manufacturing agent by specifying his/her address.

A screenshot of a computer

Description automatically generated

The manufacturing agent has 0 products as shown in the above screenshot