

## Practical - 06.

\* Aim: Write a program to create a Business Network using Hyperledger.

\* Theory:

1] Hyperledger Business Network.

- Hyperledger fabric is a permissioned blockchain for enterprises.
- A business network defines:
  - Participants : Entities (eg. Customer, Merchant).
  - Assets: Things of value (eg. products)
  - Transactions: Actions that modify assets or trigger business logic.
  - Access control : Rules defining permissions.

2] Steps to deploy:

1. Install pre requisites - Node js, npm, docker, Hyperledger fabric ,composer cli.
2. Create network diary directory: using mkdir.
3. Define model file: Create .cto file for participants, assets.

4. Write script logic - Create .js file for transactions  
eg. purchase product.
5. Set access control - Create .acl file to define permissions.
6. Package network - composer archive create -t dir -n.
7. Install network on fabric peer - Composer network  
install -a --- .bna -c peeradmin@fabric network.
8. Start network : Composer network start --
9. Interact with network -
  - Add participants (customer, merchant)
  - Add assets (Products)
  - Submit transactions (purchase product).

#### \* CONCLUSION:

A hyperledger fabric business network was successfully created, including participants, assets and transactions. The network can securely manage business operations in a permissioned blockchain with transaction execution observable via composer Playground or CLI.