System built and functionality:

**Project brief:**

Our project base on the Block Chain platform and realize a Dapp about the shopping cart. We use solidity to build a smart contract to apply the functions, using truffle frame to connect the Front-end layer and contract layer, and HTML for Front-end layer.

**Improvement**:

1. The most advantage part in our project is based on the Block Chain platform:
   * Transparency
   * Faster transaction settlements
   * Decentralization
   * Peer-to-peer global transactions
2. Local storage for shopping cart (when you switch account, the shopping detail will get the record that contain the last shopping list)
3. advanced function:
   * There are 3 statuses for the transaction checking, order processing, order succeed and order canceled.
   * transfer the Ether with steps(confirm->transfer, refund-> return the Ether);
   * top-up and withdraw the account.(balance in the contract)
4. catch the error in the contract caused by the wrong operation from user.
5. comment system stores in the database.
6. Friendly UI

We will show the detail later in the presentation part.

**Structure:**

Shopping cart project provide a general website for the seller and buyer.

For seller:

* post product, modify the detail of product
* check the history transaction record

For buyer:

* searching items
* add products into the cart
* transfer the Ether with steps(receive the confirm signal)
* top-up and withdraw

**Presentation step:**

1. log in
2. post 2 items( show the firebase connection according to the rule reset before)
3. modify items
4. change account
5. acc2 top-up ( virtual coin to set in block chain)
6. search
7. show detail
8. add comment and rating ( top rating base on highest rating in database)
9. acc2 add to check out from acc1 ( dynamically change amount)
10. check history
11. check initial balance
12. refund the transaction ( delay the payment to ensure the buyer right)
13. check balance and status
14. confirm transaction
15. switch account
16. check sell history
17. check balance
18. acc1 withdraw (transfer the virtual coin to the Ether with constant ratio)
19. check balance and Ether