DAPP

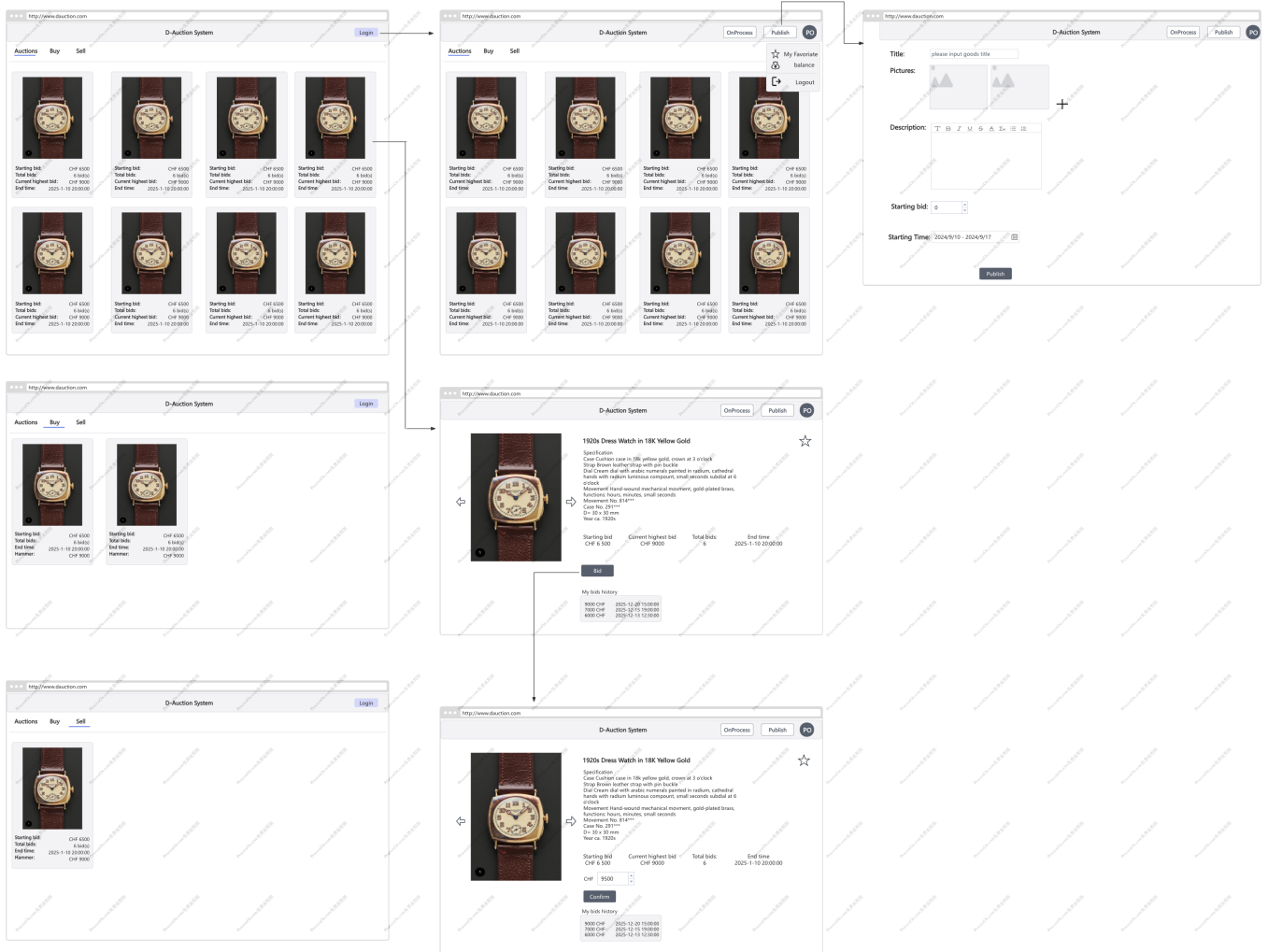## APP theme： Auction System

1. User Registration and Identity
2. Auction Creation Include details like:
   - Item description.
   - Starting price.
   - Auction duration (start and end times).
   - Reserve price (optional minimum acceptable price).
3. Bidding
   - Place Bid:
     - Allow users to submit bids higher than the current bid.
   - Track Highest Bid:
     - Ensure the highest bid is updated in real time.
   - Refund Outbid Users:
     - Automatically return funds (or placeholders) to bidders who were outbid.
   - Bid History (Optional):
     - Display a list of all bids for transparency.
4. Auction Lifecycle Management
   - Start Auction:
     - Activate an auction at the specified start time.
   - End Auction:
     - Automatically or manually close the auction when the duration ends.
     - Determine the winner (highest bidder).
     - Handle unsold items if no bids meet the reserve price.
5. Payments and Funds Management
   - ~~Escrow System:~~
     - ~~Lock the highest bid funds during the auction.~~
     - ~~Hold funds until the auction is successfully completed.~~
   - Transfer Funds:
     - Release funds to the seller after the auction ends.
   - Refund Mechanism:
     - Refund all other bidders except the highest one.
   - Fees (Optional):
     - Deduct platform or transaction fees if applicable.

Prototype

project structure

contracts: smart contract code

frontend： frontend code

scripts: smart contract code deploying scripts

hardhat.config.js: framework for compiling, testing and deploying on a local

package.json: package management / project config

others: compiling / running artifacts

Develop progress：

开发规则：

1. 代码不要直接合并到main分支，应该合并到dev
2. 可以从dev分支拉个自己的分支
3. 先pull,本地解决完冲突，自己验证通过，再push到远程