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Definition

 We skip the CRUD operation system tasks. Obviously when any of the users create, view, update or delete something, the system must persist it in the database.

User Stories

- 1. The system checks the stock level and marks the product as "not available" if the stock level is zero.
- 2. Purchasing of a "not available" product is locked.
- 3. In regular 10 min intervals, the system queries the database and sends a confirmation email to the users for their new orders.
- 4. After a technician was assigned to a service task by the manager, the system must forward the task to the technician's dashboard.
- 5. Depending on the customer profile, purchase history and distance, the installation price should be calculated by the system.
- 6. After a service request's status was changed from "assigned" to "in progress" (the technician started to work on the service request), an invoice must be created which contains the service order details including the price, assigned technician, address, installation service category..., and an empty space for the customer's signature. The customer must sign it and then the technician uploads a scanned file to be able to change the status to "done".
- 7. After a delivery person changed the status of an order from "assigned" to "in progress" (the delivery person started to work on the order delivery), an inventory receipt must be created which contains the product order details including the price, assigned delivery person, address, category..., and an empty space for the delivery person's signature. Delivery person must download, print, sign and hand it to the inventory staff in order to receive the product from the inventory.
- 8. Automatic serial number produced by the system with category and goods IDs and a random number.
- 9. Comprehensive auditing for disaster recovery.
- 10. System and hardware failure alert to the system admin.
- 11. Passwords must be encrypted before being persisted in DB or transferred on the internet.

12. At any point of time, regardless of the system or transaction status, the system should be possible to roll back to a stable status. E.G. if in the middle of a transaction due to a hardware failure or system bug, a transaction was interrupted, the system must reset itself to an stable status after the system restart, instead of a hanging payment, undefined transaction status after the payment was performed successfully ...