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# Analysis

## Brief

My application will be built for a client who produces novelty clocks and coasters. My client presently uses multiple methods for selling their products; the primary four are the two online storefronts eBay and Etsy, the client’s personal website, and a large physical stall held at Christmas in Manchester. The clocks are produced with the central sections of vinyl records, the coasters are made from custom made plastic bases and have (custom made) stickers applied to the top. They are sold in tins of 6, with the tin and the sticker to go on the tin being two separate components too. The client keeps a central inventory which the online storefronts draw from, and takes a different inventory with him each day of the Christmas market.

My goals for the application according to the client’s needs are:

* Keep track of all components in inventory
* Keep track of all completed products in inventory
* Keep track of generic sales from all online storefronts via API integration
* Keep the storefronts up to date with current stock and give manual control over what products are sold where to the user
* Keep track of costs of components, gross and net profits
* Give a detailed breakdown of sales statistics for the online storefronts (including visual representations) on:
  + A time period divided basis including options for months, days and years
  + Comparisons of different selling statistics
* Have a separate function for the physical market where the client inputs what inventory they took with them and then what they sold, and what they didn’t and provide stats relevant to this too
* Allow the client to print a catalogue to take with them to the market to display
* Have an authentication system, ie. a user logon page before the user can access sensitive information or be able to edit anything and allow different ID/password combos to be created for other employees (possibly with varying permissions)
* Provide a web-based UI for all these functions with intuitively and clearly displayed information and interactive elements
* Allow the user to edit prices of both components and products

## Stock Control

The application needs to keep track of:

* Coasters; completed sets as they are not sold individually
  + Bases
  + Tins
  + Stickers; these come in sets of 7, one for the tin at the end, and one for each coaster in the tin
* Clocks
  + Vinyl records; these are unique and obtained from various sources including second hand markets and shops by the client himself individually. Photographs or references to the record on relevant websites would be helpful here
  + Clock mechanisms
  + Plastic coating for the boxes, this will be best tracked in sheets with a set number of boxes to fit on them

## Storefront Synchronisation

There are three online, trackable locations where the products are sold: eBay, Etsy and the client’s personal website. These three outlets are different in significant ways. The personal website does not show stock information other than marking products as “out of stock”. Etsy and eBay keep track of stock by showing how much of an individual product is left

## Initial Notes

Stock:

-Records to be turned into clocks

-Stickers

-Blank Coasters

-Completed coasters (# of sets (6 in a set))

-Clocks – limited selection of records which are ordered frequently:

-Tins

-Costs of stock?

Core features:

-Separate mode for Christmas market or other special occasion:

-Separate inventory

-Printable catalogue

-Inventory management:

-Overview of completed stock

-Separate screen for total inventory/total components?

-Developmental features “add x amount of y”

-Tables:

-Orders

-Deliveries of components

-Production of completed products

-Clients

-Inventory

Extra features:

-Interface with online outlet’s APIs

-Centralize stock values/inventory across all outlets

-Authentication system

-Infographics

-Product comparisons and other data aggregation

Advantages:

-Volume sold; profit and gross

Notes:

-Postage is paid by client

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