Financial Advisors

Phase 2 Report

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1 Breakdown: Records Management

1.1 Summary

- Records exist as paper forms.
- Records associated with a client are stored in a folder.
- Clients' folders are stored in a filing cabinet.
- Retrieval requires manually searching through the folders.
- Must predetermine which records are needed for offsite meetings.
- No software CRM system.

1.2 What Currently Works

- Paper system has an extremely low learning curve.
- Forms are fairly mobile if bringing a small stack.
- Ability to fill out the forms with client side-by-side during a meeting.
- Getting the client's signature is easy.
- Subject can transcribe to financial software and computer at their leisure.
- Fulfills compliance department's requirements automatically (must keep paper records).

1.3 Existing HTA

0 - Add new records for client

- **1** - Print form
- **2** - Gather client information
    - **2.1** - Go to client's house
    - **2.2** - Complete the printed form with client
- **3** - Insert completed form into file cabinet
    - **3.1** - Return to office
    - **3.2** - Retrieve the client's file folder
    - **3.3** - Insert the completed forms into the folder
    - **3.4** - Place folder in file cabinet

0 - Retrieve client information
- **1** - Return to office
- **2** - Open file cabinets
- **3** - Manually search for the folder labelled with the client’s name
- **4** - Manually search for the relevant documents in client’s folder

Plan 3 - Repeat for all file cabinets until desired client is found
Plan 4 - Repeat until all relevant documents are found

0 - Modify client information
- **1** - Client information has updates
    - **1.1** - Client informs advisor
    - **1.2** - Advisor discovers updates when performing reviews for clients
- **2** - Return to office
- **3** - Open file cabinets
- **4** - Manually search for the folder labelled with the client’s name
- **5** - Manually search for the relevant documents in client’s folder
- **6** - Review changes
    - **6.1** - Simple personal information changes
        - **6.1.1** - Handwritten on pieces of paper
        - **6.1.2** - Printed forms
    - **6.2** - Complicated policy and family status changes
        - **6.2.1** - Retrieve required empty forms
        - **6.2.2** - Print forms
        - **6.2.3** - Enter newest client information
- **7** - Submit application forms

Plan 1 - Either **1.1** or **1.2** could trigger the process
Plan 4 - Repeat for all file cabinets until client is found
Plan 5 - Repeat until all relevant documents are found
Plan 6 - Only one of **6.1** or **6.2** could occur
Plan 6.1 - Either **6.1.1** or **6.1.2** completes the task
Plan 6.2 - Repeat steps **4** - **5** - **6** until all requirements are met

2 New Work Practice

2.1 Summary and Vision

- **Design Premise**: Paper forms should be preserved; cannot be obviated.
- **Question**: If we create a system that allows for efficient retrieval, how do we bridge the physical-digital divide without increasing workload, i.e. more data entry?
- **Solution**: Digitizing system + cloud-based organizer software system
    - Digitizing system: Anoto pen, scanner with OCR
    - Cloud-based software system: Evernote as inspiration
    - No additional data entry.
    - Text-recognition, tagging allows advanced searching and filtering.
- **Problems Solved**
    - Inefficient record retrieval.
    - Lack of on-demand record retrieval.
    - Lack of backups for records.
- **New Work Practice**
    - Fill out forms on paper.
    - Forms are digitized via Anoto pen or scanner.
    - Existing records can be digitized using scanner.
    - Use software system to populate metadata.
    - Use software system for record retrieval.
- **Metrics for Success**
    - Efficiency.
    - Flexibility and portability.
    - Robustness and recoverability.

2.2 New HTA

0 - Add new records for client

    1 - Print forms on dot-patterned papers for Anoto pen

    2 - Gather client information

        2.1 - Go to client's house

        2.2 - Complete the printed form with client by Anoto pen

    3 - Insert new records

        3.1 - Return to office

        3.2 - Digitize gathered information

3.2.1 Upload the Anoto pen forms into computer
3.2.2 Scan completed form using scanner
3.3 - Input attributes for the digitized forms with new system
3.4 - Submit forms
3.5 - Retrieve client's folder from file cabinet
3.6 - Insert the physical forms into the client's folder
3.7 - Place folder in file cabinet

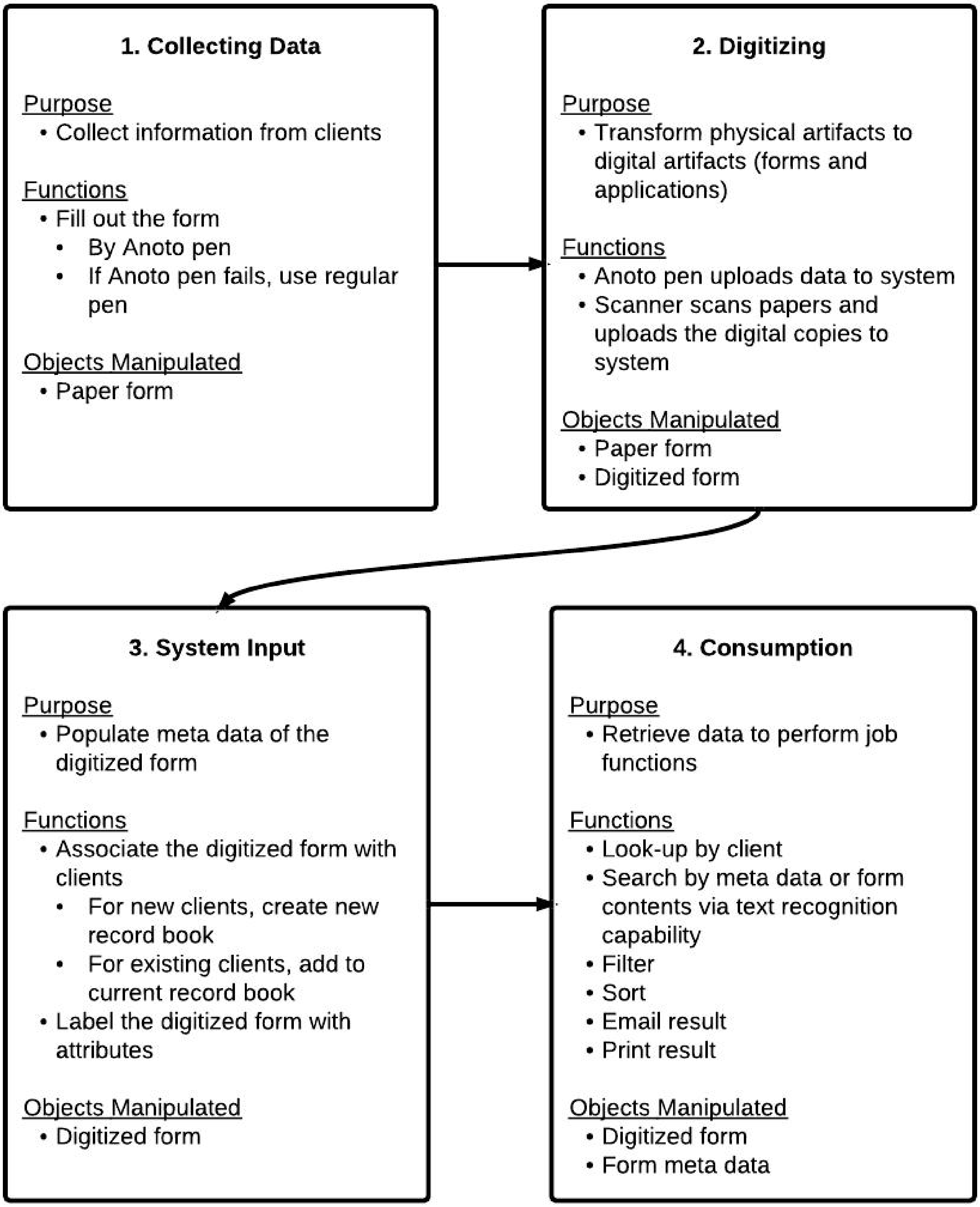
Plan 3.2 - Only perform task **3.2.2** in case of Anoto pen failure in **3.2.1**

0 - Retrieve client information
1 - Connect computing device to Internet
2 - Open software system
3 - Search by client name, document content, or filter by attributes to find relevant documents

0 - Modify client information
1 - Client information has updates
1.1 - Client informs advisor
1.2 - Advisor discovers updates when performing reviews for clients
2 - Return to office
3 - Connect computing device to Internet
4 - Search by client name for all records associated with the client
5 - Review changes
5.1 - Simple background information change
5.1.1 - Handwriting
5.1.2 - Print forms directly from search result
5.2 - Complicated policy and family status change
5.2.1 - Print new forms directly from search result
5.2.2 - Enter newest client information
6 - Submit application forms

Plan 1 - Either **1.1** or **1.2** could trigger the process
Plan 5 - Only one of **5.1** or **5.2** could occur
Plan 5.1 - Either **5.1.1** or **5.1.2** completes the task

2.3 UED Diagram



3 Prototype

3.1 Login View

The cloud-based software system for record management will feature an authentication system. Users will login to the software on each device to access their secure data.

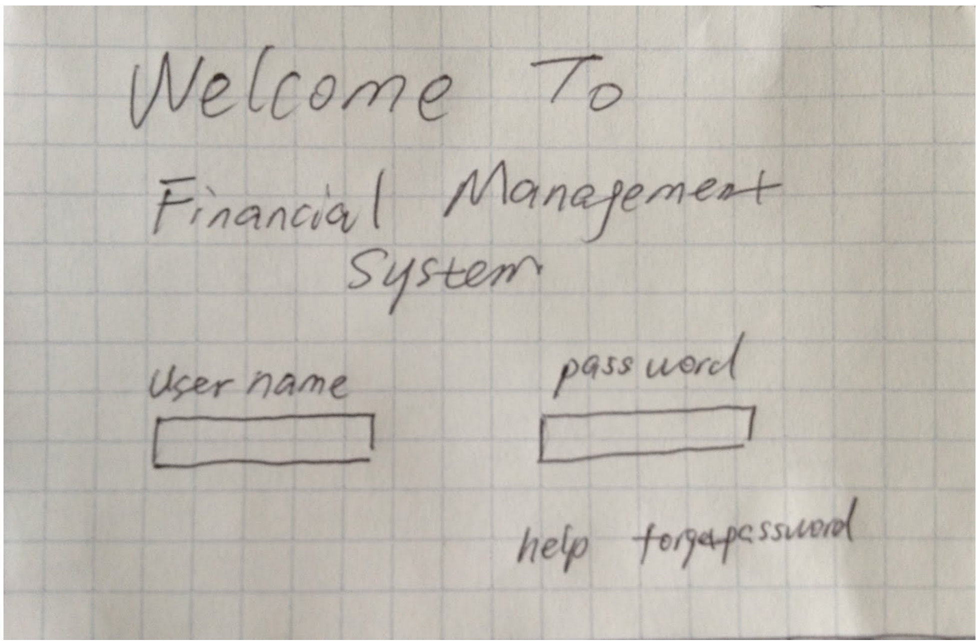


Figure 3.1.1 - Login screen

3.2 Notifications

In the digitizing process, a popup will notify the user that it is available for cataloguing.

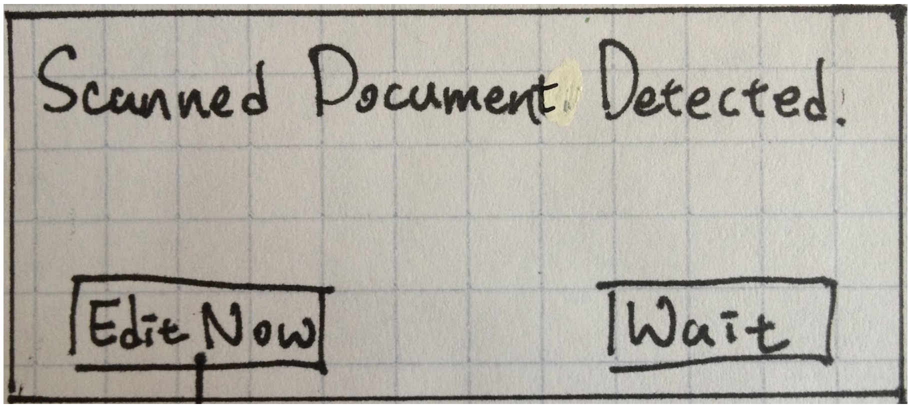


Figure 3.2.1 - Notification for a scanned item

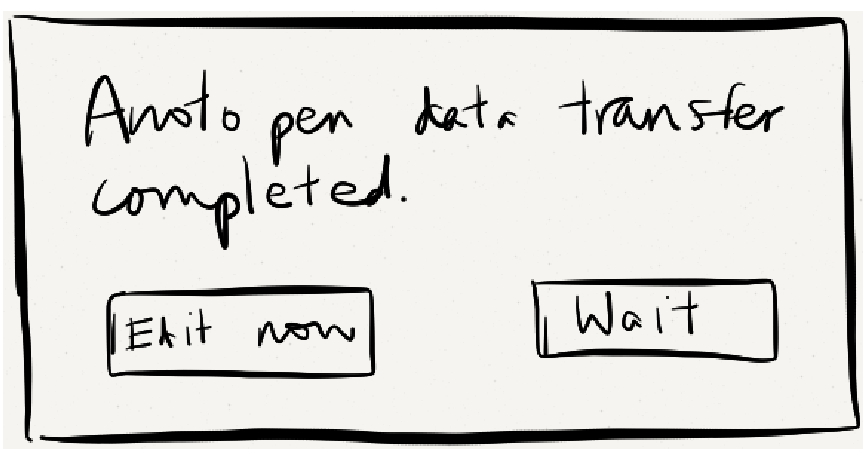


Figure 3.2.2 - Notification for Anoto pen data transfer

Clicking on the **Wait** button will put the document in a waiting list, which can be edited at a later time.

Clicking on **Edit Now** will display a screen as shown in Figure 3.3.1.

3.3 Input View

The input view is used to associate a new record with a client's record book, either a new client or an existing client. Additional attributes can be attached to the record as well.

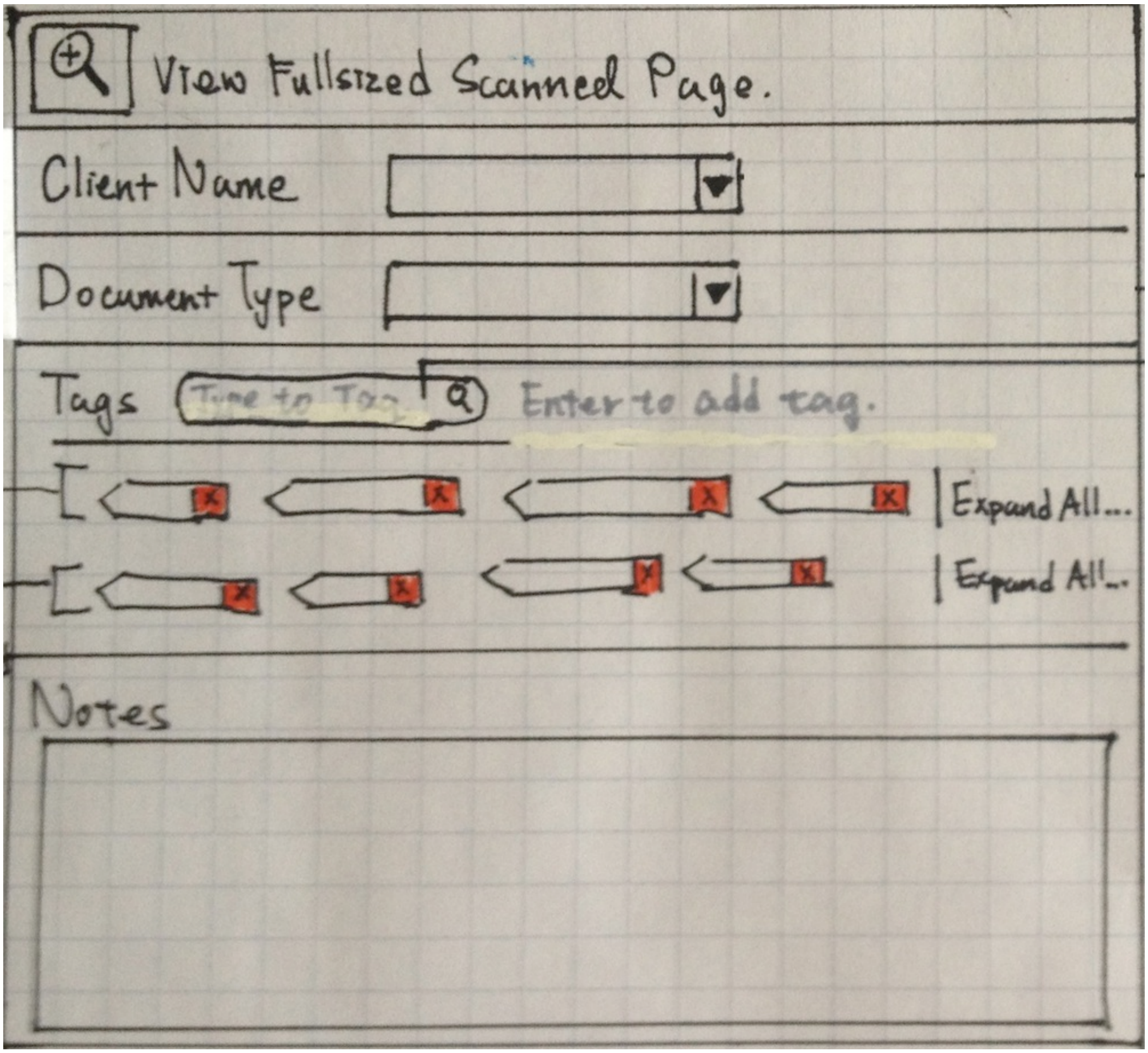


Figure 3.3.1 - Screen for inputting document metadata

Clicking on the **Magnifying Glass** on the top left corner of the window will display the digital document in full size (Figure 3.3.2).

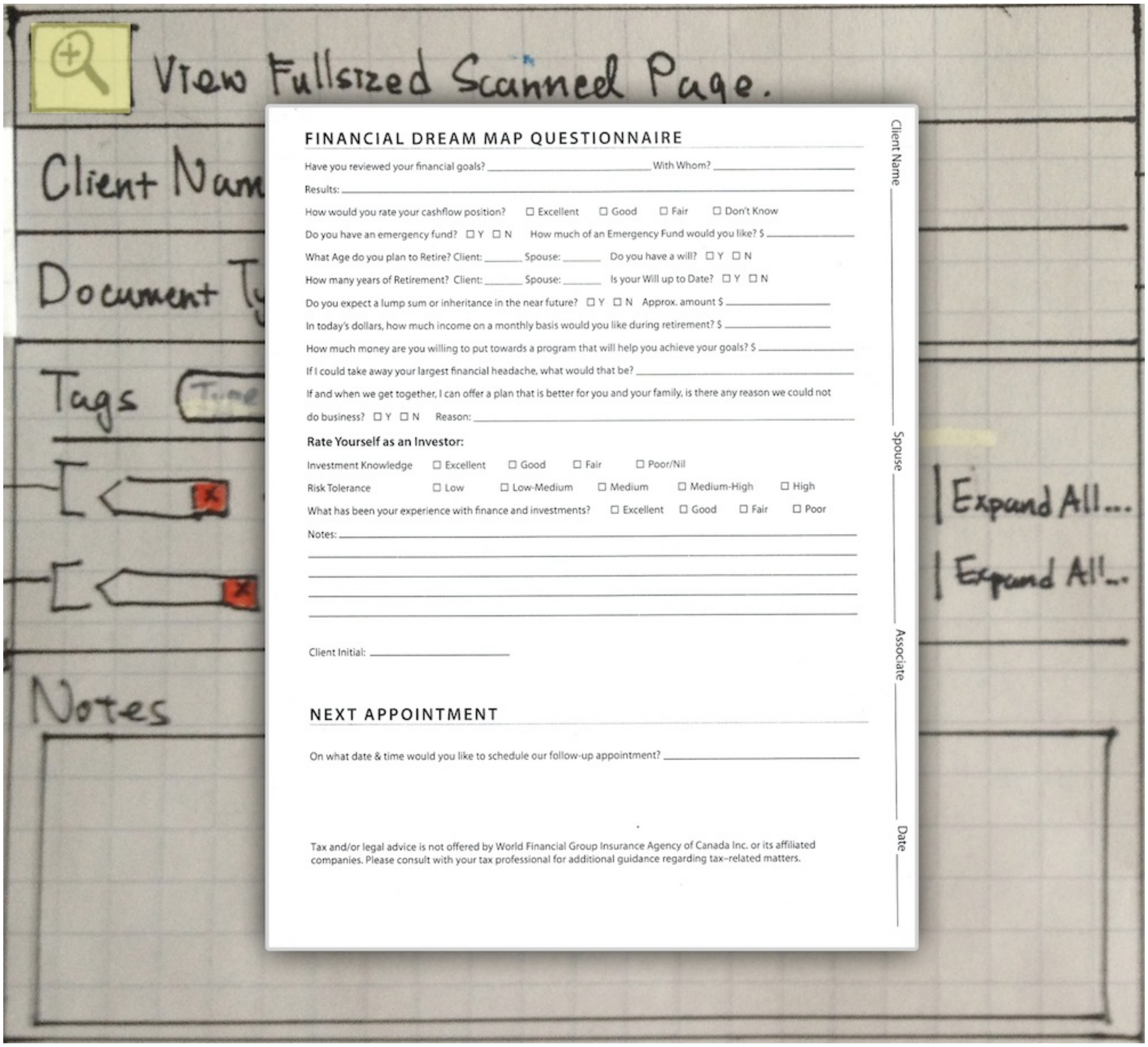


Figure 3.3.2 - View full-sized document

On focus, the **Client Name**, **Document Type**, and **Tags** fields will display a dropdown list similar to Figure 3.3.3. The list suggests data based on the text input, and will update its content in real time. Clicking on any of the suggestions will autocomplete the box with the selected item.

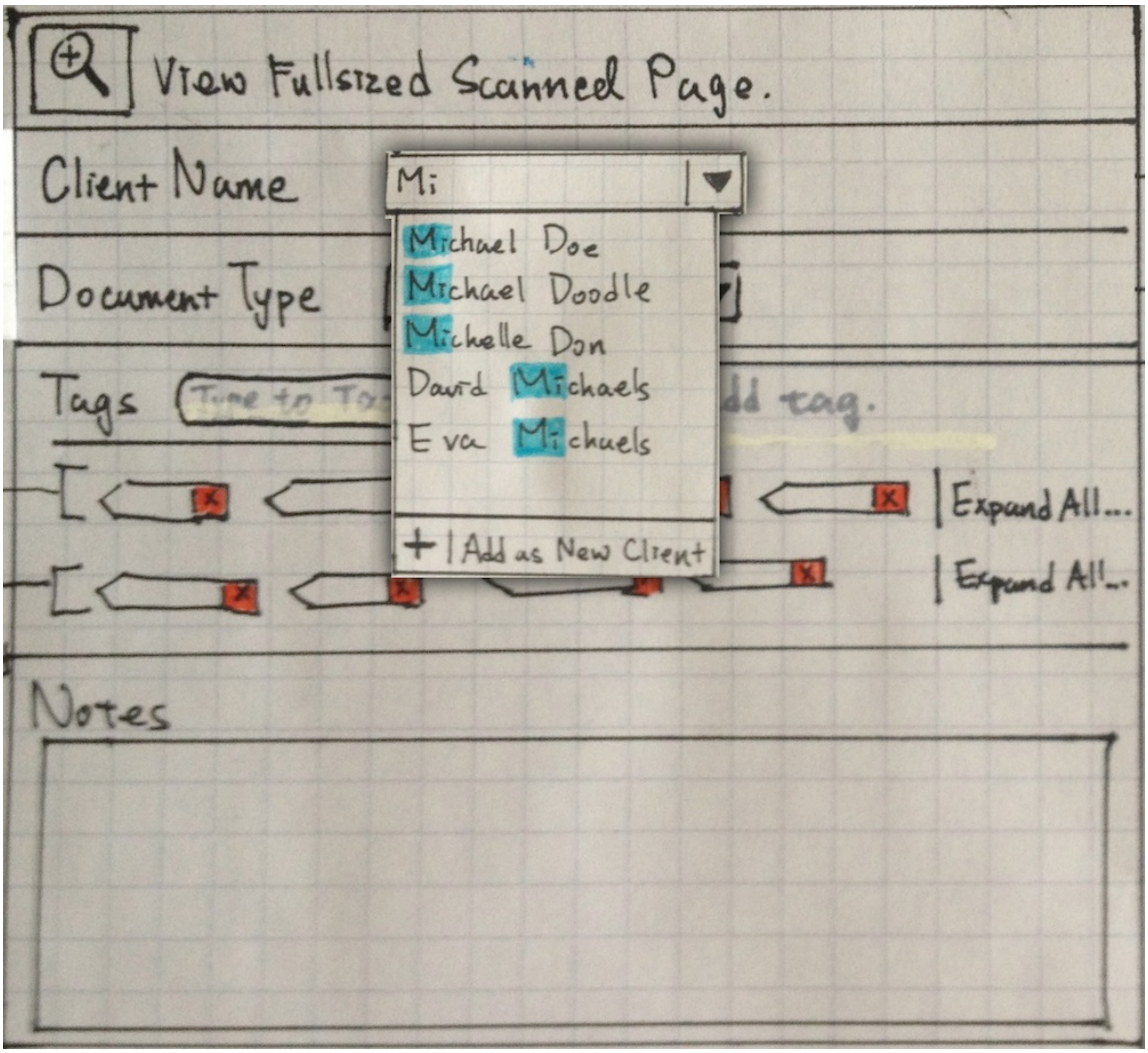


Figure 3.3.3 - On-focus drop down box for search suggestions

For **Client Name** and **Document Type**, an option to **Add** new data is available at the end of the list. Clicking on the **Add** option will close the dropdown list, and the typed text will be suggested in the future.

Applying **Tags** will be optional and is geared towards more advanced users. The purpose of tags is to enable filtering of records on a more detailed level, by different attributes. The system will provide a list of common tags that the user can select and apply.

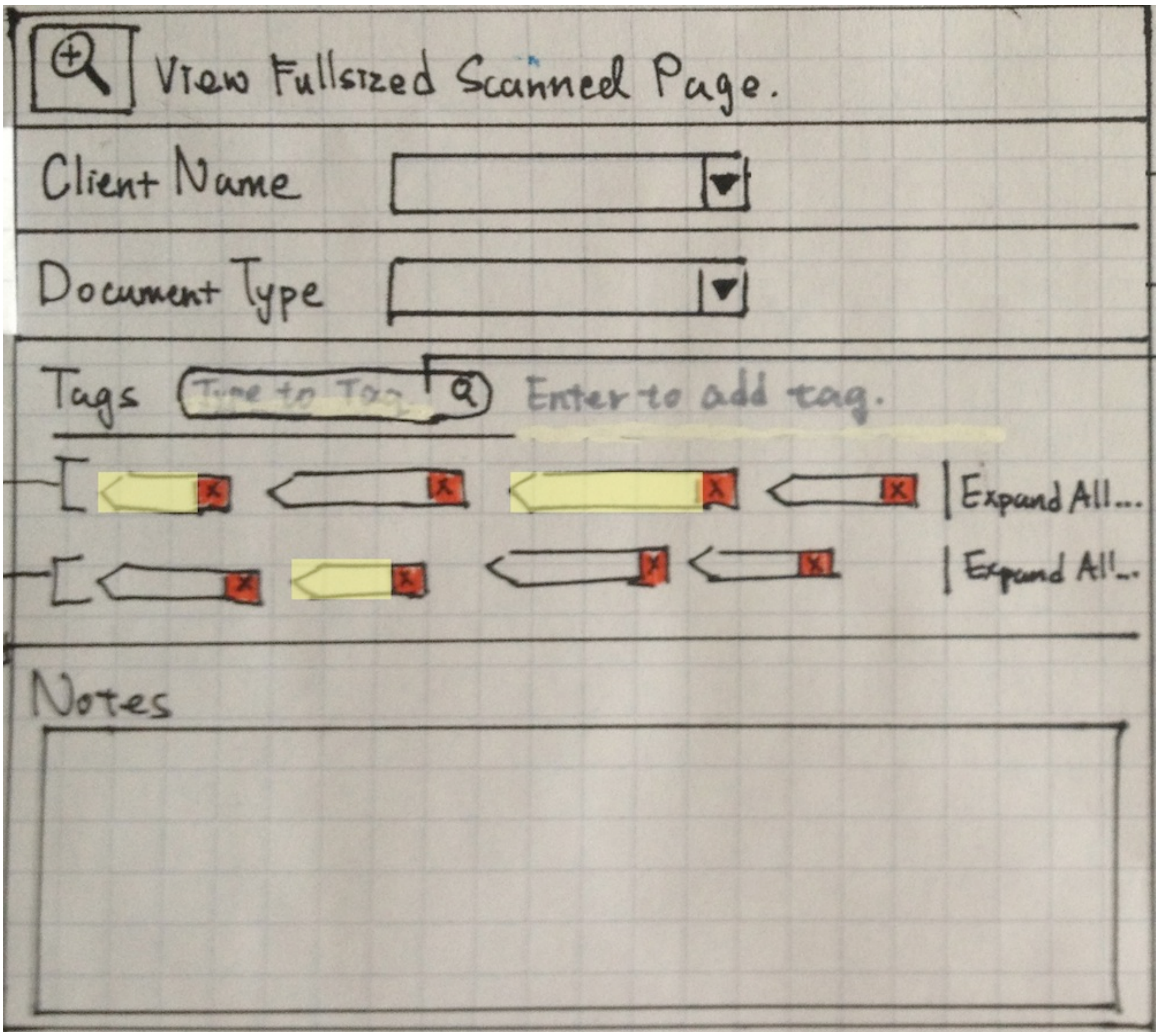


Figure 3.3.4 - Showing selected tags

In the **Tags** section, tags are grouped by types. Each row exhibits one group; if the group cannot be fully displayed in a row, an **Expand All** option will be displayed. Clicking on **Expand All** will list all tags associated with the selected group, immediately below the selected row.

At the end of this screen is a **Notes** text field, where additional data can be entered.

3.4 Consumption View

To retrieve records, the consumption view is used (Figure 3.4.1). This view provides search and filtering functionalities, as well as the ability to display detailed information, all within the same window.

The consumption view contains the **Clients Column** (left), **Documents Column** (middle), and **Information Column** (right).

Clients Column contains two tabs, **Active** and **Inactive**. The **Active** tab lists all current clients, and the **Inactive** tab lists all previous clients. Under this column, a dedicated search box is provided for searching client names.

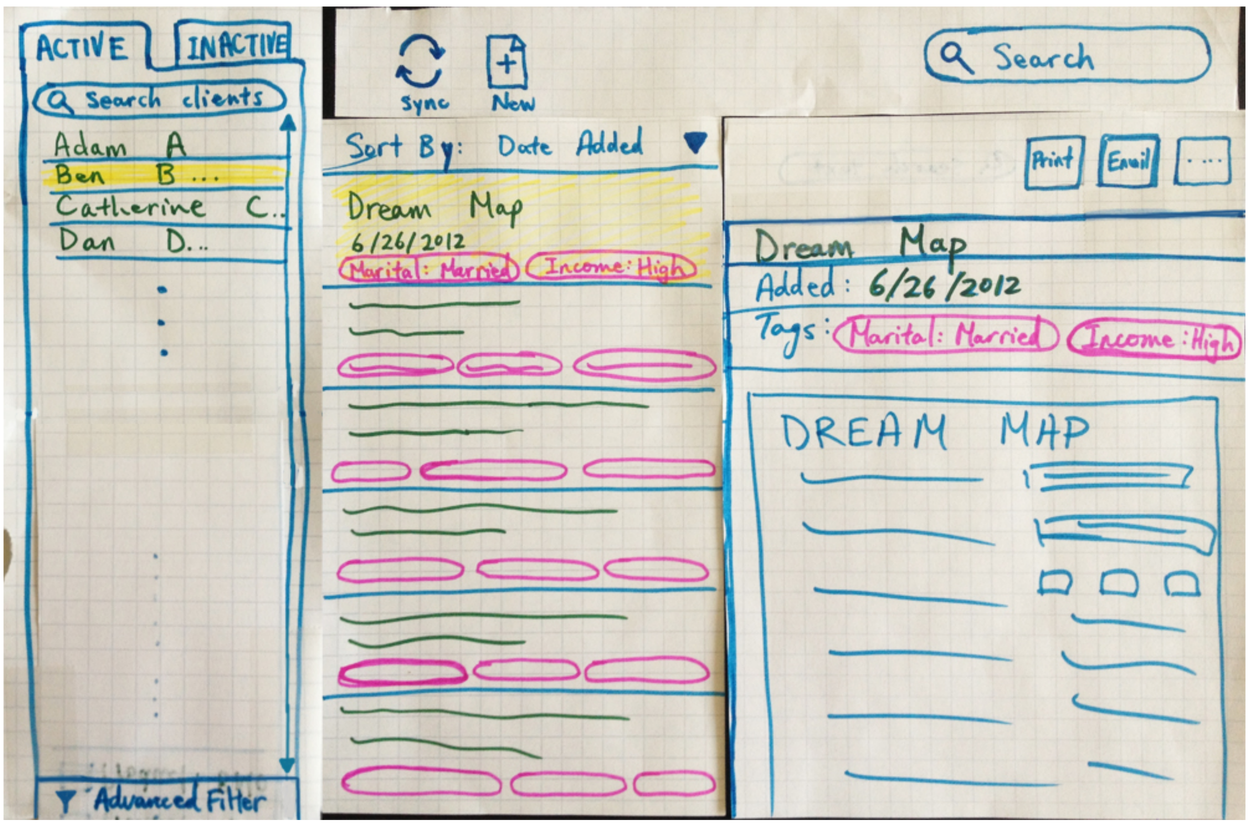


Figure 3.4.1 - Consumption view: basic search, result list, details for selected item

The **Documents Column** lists all documents associated with the selected client. To specify the display order of the list, click on **Sort By** dropdown list and select the attribute to sort with. To search for a certain document, use the search box provided on the top right corner of the window. This search box will display any document whose attributes or content contains part of the search text.

The **Information Column** displays the digitized form of the selected document with its attributes. The top part of this column contains buttons for performing actions on the document (e.g. Print, Email, Edit, etc.).

Left to the search bar (above the **Information** and **Documents Column**) are **Sync** and **New** buttons.

Clicking on **Sync** will push any changes to the cloud-based system backend. **Sync** will send the new data to the server securely. Afterwards, all of the newly added information will be accessible on all computing devices authenticated with the software system.

Clicking on **New** will display the screen shown in Figure 3.3.1, which can be used to add new data. If there are new digitized documents in the waiting list, the system will display the list and ask to edit them.

To narrow down the client list, click on **Advanced Filter** at the bottom of the **Clients Column** and select attributes to filter with (Figure 3.4.2). There is also a search box for searching attribute types under the **Advanced Filter** widget.

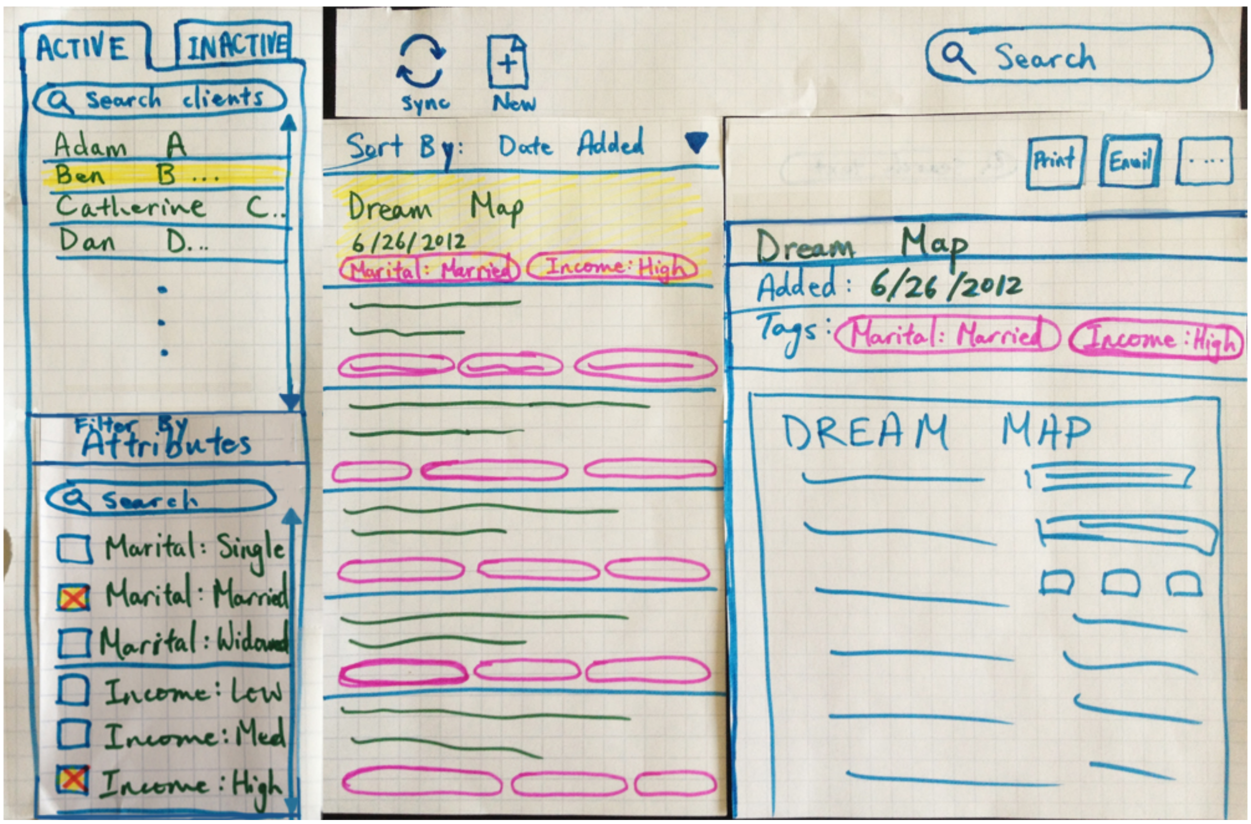


Figure 3.4.2 - Consumption view: Advanced filtering (bottom left)

4 Issues

A classmate raised an issue concerning the digitization of all existing records. His comments led us to consider the implications of the extra workload we will be imposing on the subjects, which will require them to transfer all existing documents to the new system at its introduction. While the work required per client would not differ between subjects, it is safe to assume that one with an extensive client base will be less willing to begin using the system.

Professor Lank helped us in realizing that Anoto pens can provide a more automated method of data transfer compared to a scanner. To transfer data, the subjects only need to connect the Anoto pen to the system, automatically making the data available in various formats. In case that the Anoto pen fails to function, a scanner can be used as a backup to digitize completed forms. The previous sections of this report accurately reflects this addition to the redesigned work process.