Ruta Gokhale

USER EXPERIENCE DESIGNER

CASE STUDY - COLLIBRA

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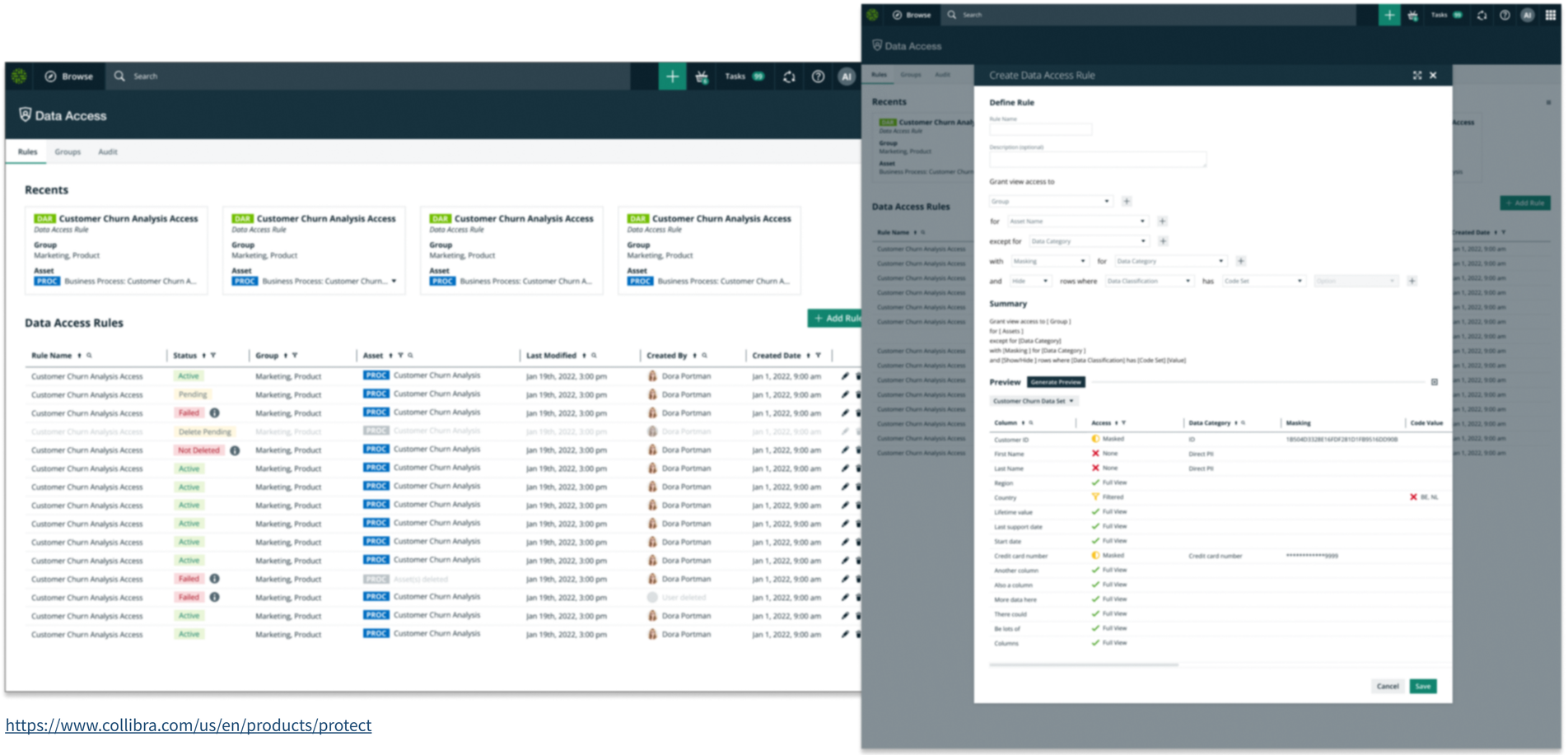


https://www.collibra.com/us/en/products/protect

Helping data stewards and privacy teams in an organization manage access to data through pred-defined policies for protecting sensitive information

UNDERSTANDING THE PROBLEM

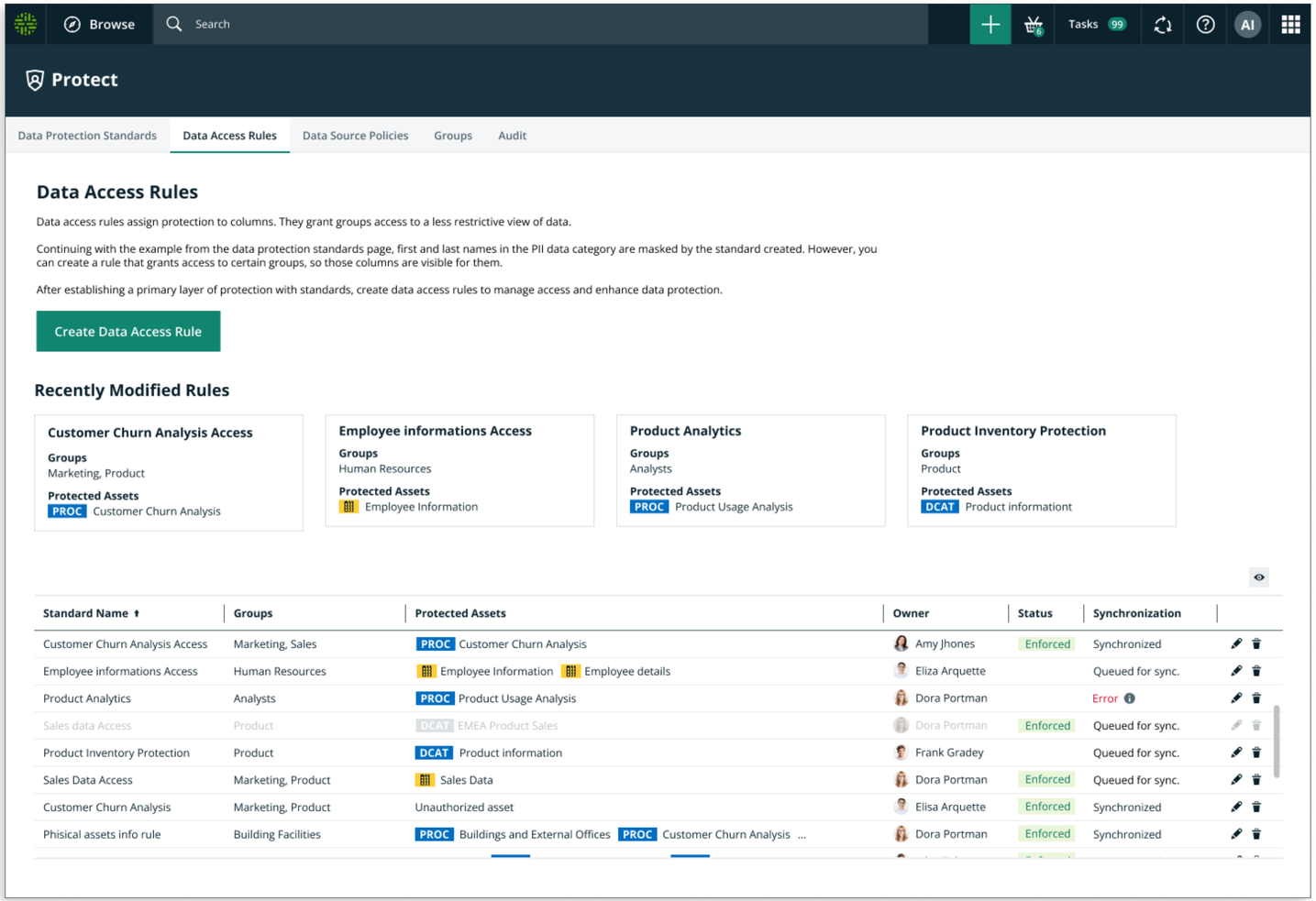
- Managing permissions for data in an organization can get cumbersome. The permissions vary across hierarchies and departments. Different groups of people may need varying levels of access to the same dataset.

- Granting access and approving these requests is a huge bottleneck for data stewards. It leads to increased turnaround times and higher waiting time for consumers of the data. Additionally, multiple copies of source data are created. Overall, it reduces efficiency of work.

PROPOSED SOLUTION - COLLIBRA PROTECT

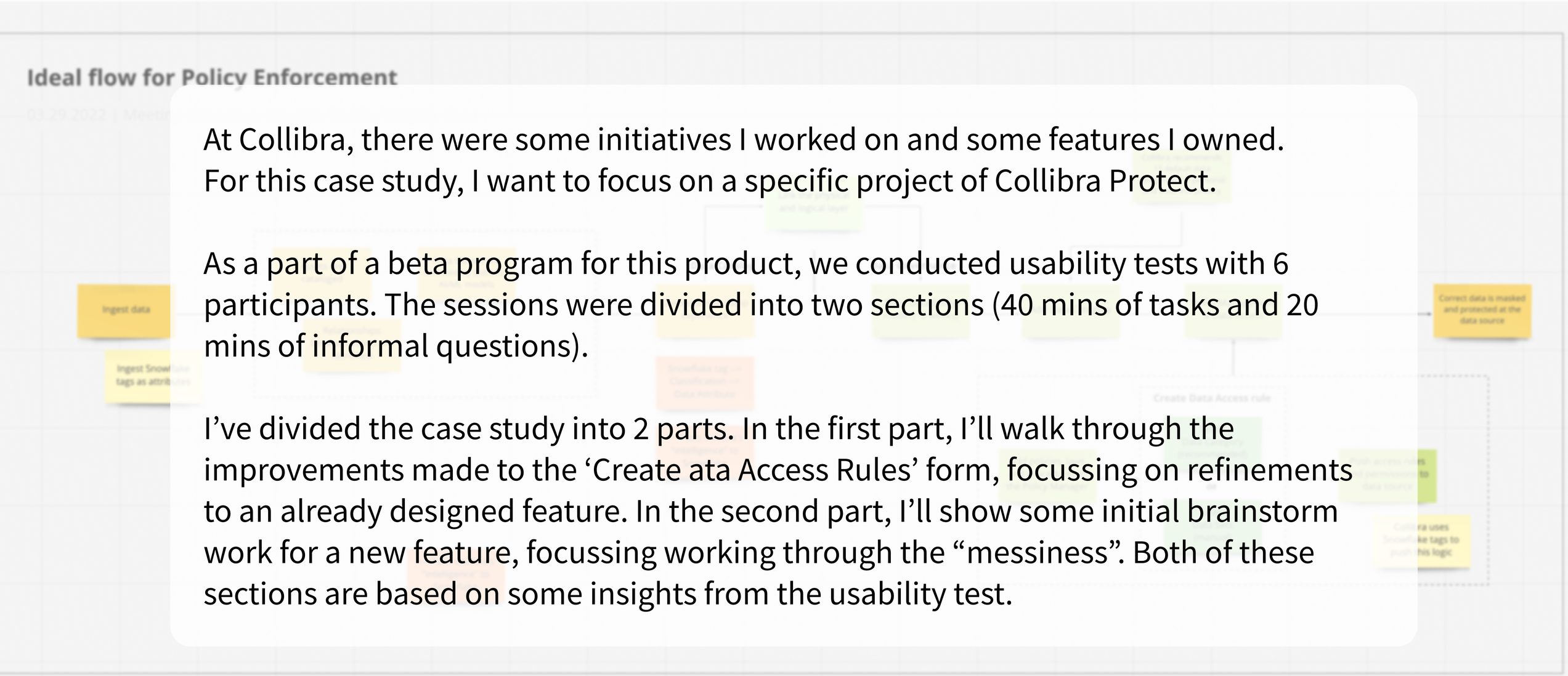
- To address this issue, we proposed an access rule creation workflow which allows data stewards to grant access to groups of people and protect sensitive information.

- These permissions and data access levels are managed through the Collibra platform and pushed to the data source. The aim is to promote a safe data-open culture in organizations.



** the work and development for Collibra Protect was already underway when I started

PROJECT CONTEXT



At Collibra, there were some initiatives I worked on and some features I owned. For this case study, I want to focus on a specific project of Collibra Protect.

As a part of a beta program for this product, we conducted usability tests with 6 participants. The sessions were divided into two sections (40 mins of tasks and 20 mins of informal questions).

I’ve divided the case study into 2 parts. In the first part, I’ll walk through the improvements made to the ‘Create ata Access Rules’ form, focussing on refinements to an already designed feature. In the second part, I’ll show some initial brainstorm work for a new feature, focussing working through the “messiness”. Both of these sections are based on some insights from the usability test.

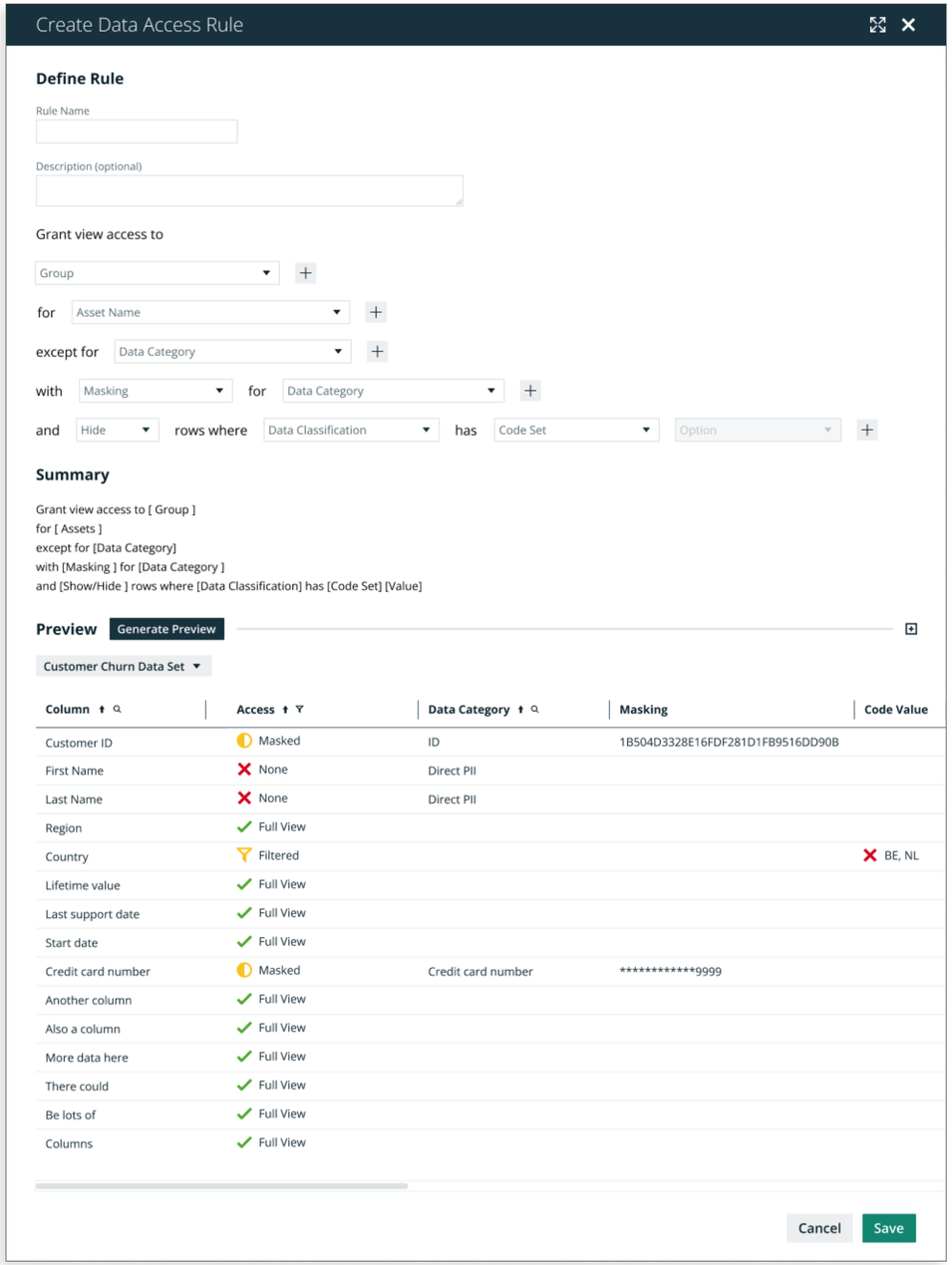
PART I - IMPROVING USABILITY OF THE 'CREATE DATA ACCESS RULE' FORM

DATA ACCESS RULE FORM

- The Data Access Rule form is really the crux of the Protect application.

- It allows data stewards (business users) of this application to create complex non-SQL (plain language) querries through a series of dropdowns to protect specific datasets, tables or columns from group(s) of users.

initial state of the form



OBJECTIVES OF THE USABILITY TEST

The primary objectives of the usability test were:

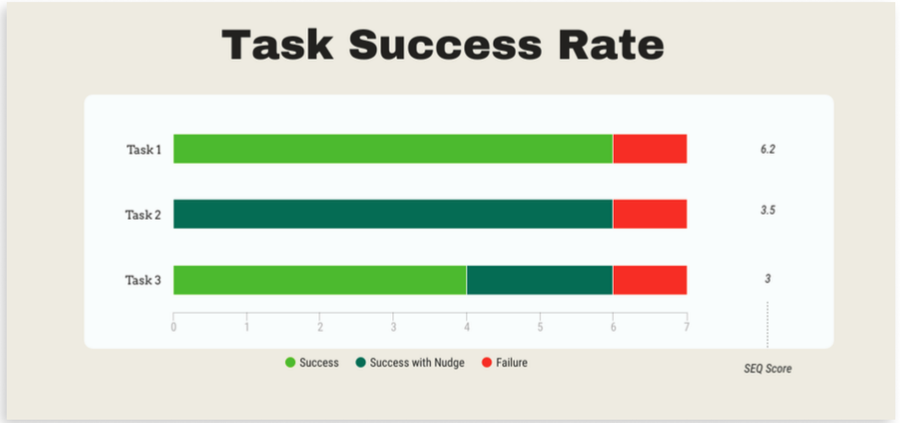
- Validate the hypothesis that - business users can understand and create plain language querries.
- Chech whether users could understand the tasks and create progressively complex querries.
- Test the usability of the application.
- Understand how well this product fits in the workflow of privacy teams for an organization. Know more about the unknowns.

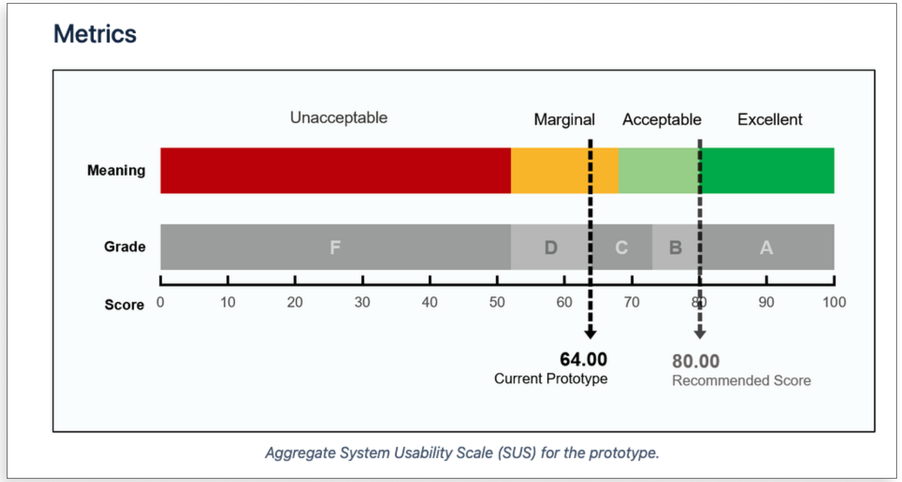
RESULTS FROM THE USABILITY TEST

> "It's funny that you said I protected [the data]. That wasn't really my feeling after completing [the task]."
>
> – **User describing the uncertainty he felt that the data was truly protected.**

Some observations and learnings from the usability test:

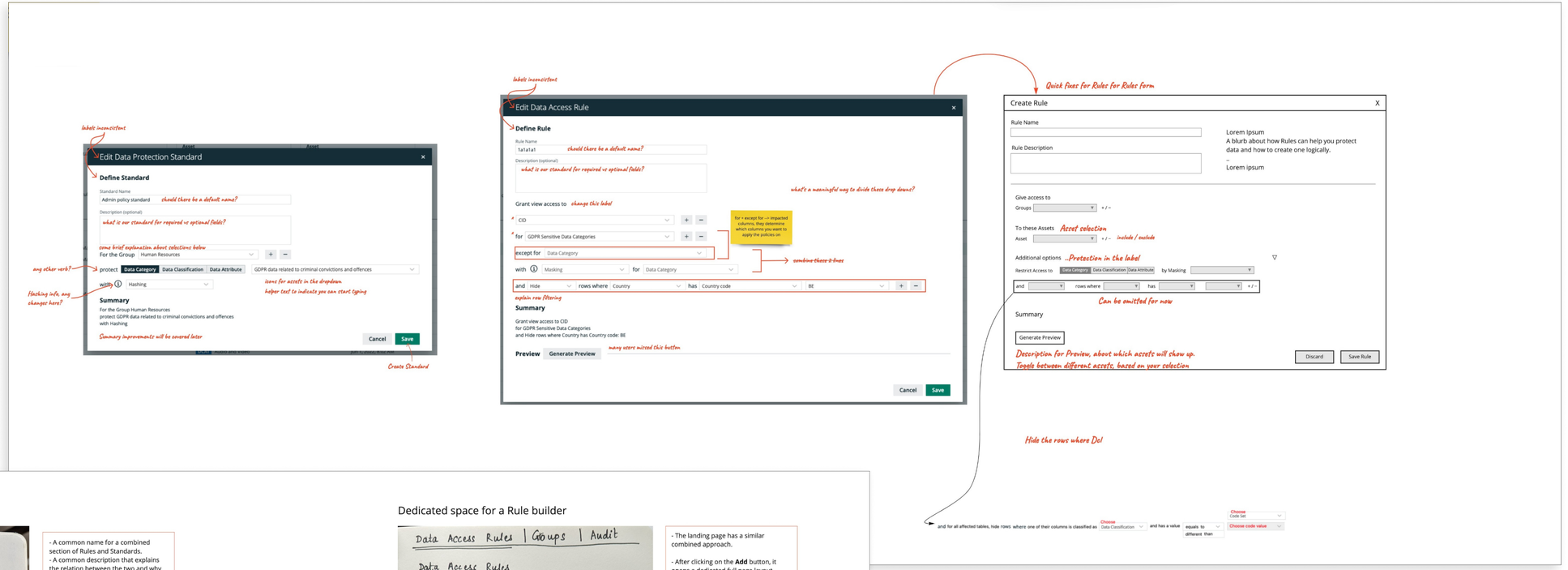
- The maturity of an organization's data governance process is a big factor in deciding if this product will be relevant.
- Descriptions of different terminiogies as defined in the solution wasn't very well understood.
- Pushing Protections from Collibra to the data source was seen as a highly useful feature.



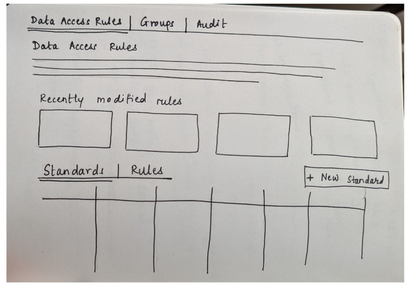


Aggregate System Usability Scale (SUS) for the prototype.

BRAINSTORM SHORT AND LONG TERM IDEAS



Combined Rules & Standards

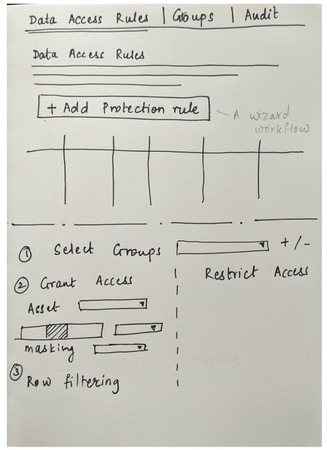


- A common name for a combined section of Rules and Standards.
- A common description that explains the relation between the two and why you might chose one over the other.

- Tab view to toggle between Rules and Standards.
- A dedicated 'Add new Standard/Rule' button for each section.

- This view presents Rules and Standards as two sides of the same coin. It gives us an opportunity to distinguish the two and guide users on how to use each one.

Dedicated space for a Rule builder



- The landing page has a similar combined approach.

- After clicking on the **Add** button, it opens a dedicated full page layout rather than a modal, for ex. a wizard, side overlay.
- Having more space will allow us to guide the user better about how to think of creating a rule vs a standard and what's the use of each dropdown.

(This idea needs to be better fleshed out.)

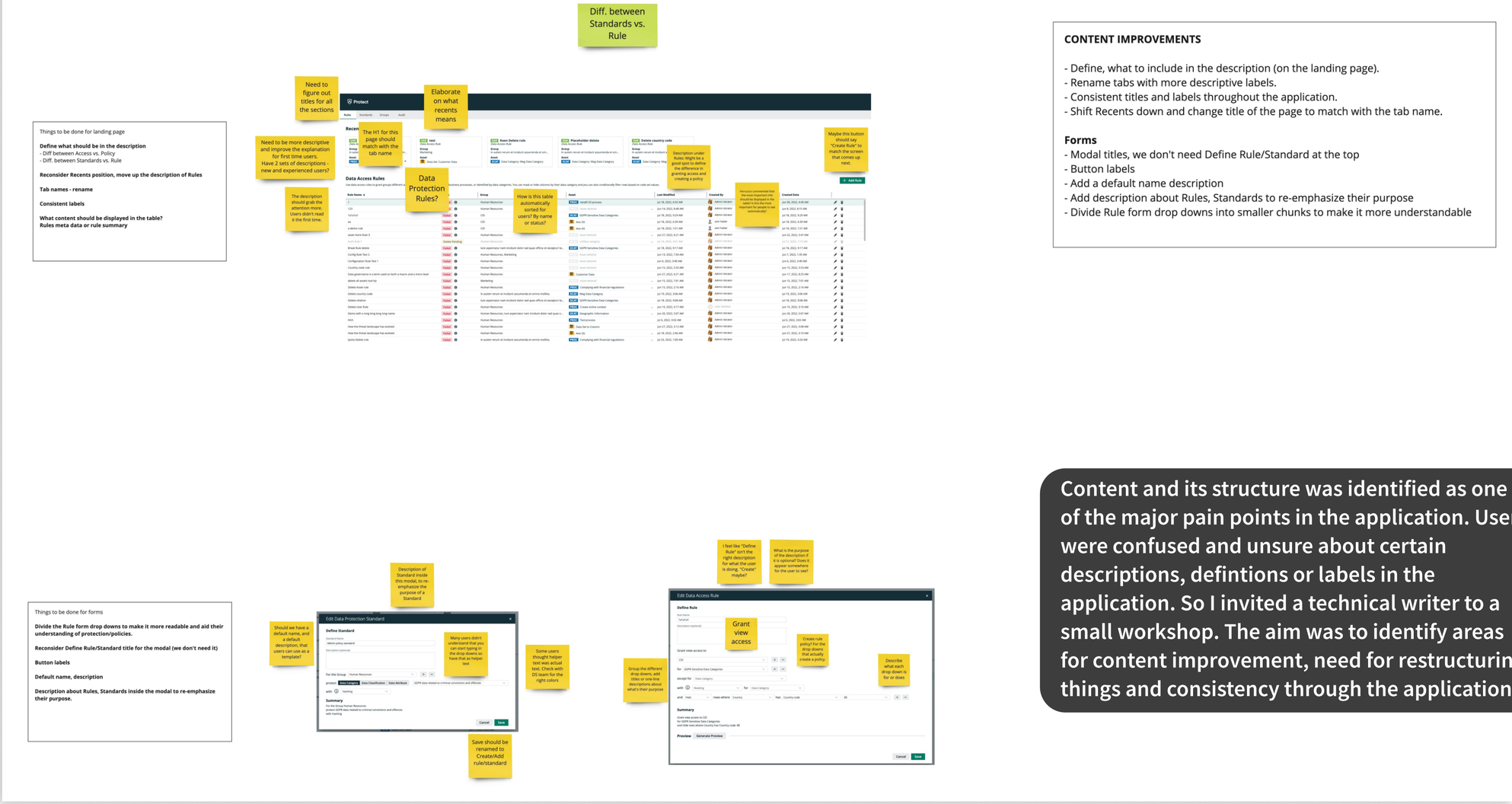
Is there a way to combine Rules and Standards into a single form?
It could look something like this -

1. Select group(s).
2. Select asset(s).
3. Additionally select D.C, D.Cl, DA and choose masking
4. Row filtering options.

- This approach goes against our current implementation of Rules overwrite Standards.
- In a combined approach, is there a chance to create more conflicts(conflicting policies)?

Based on the usability test results, I sketched some ideas - some quick fixes and some possible long term strategies to better structure the information and features in the application.

IDENTIFY CONTENT SPECIFIC IMPROVEMENTS



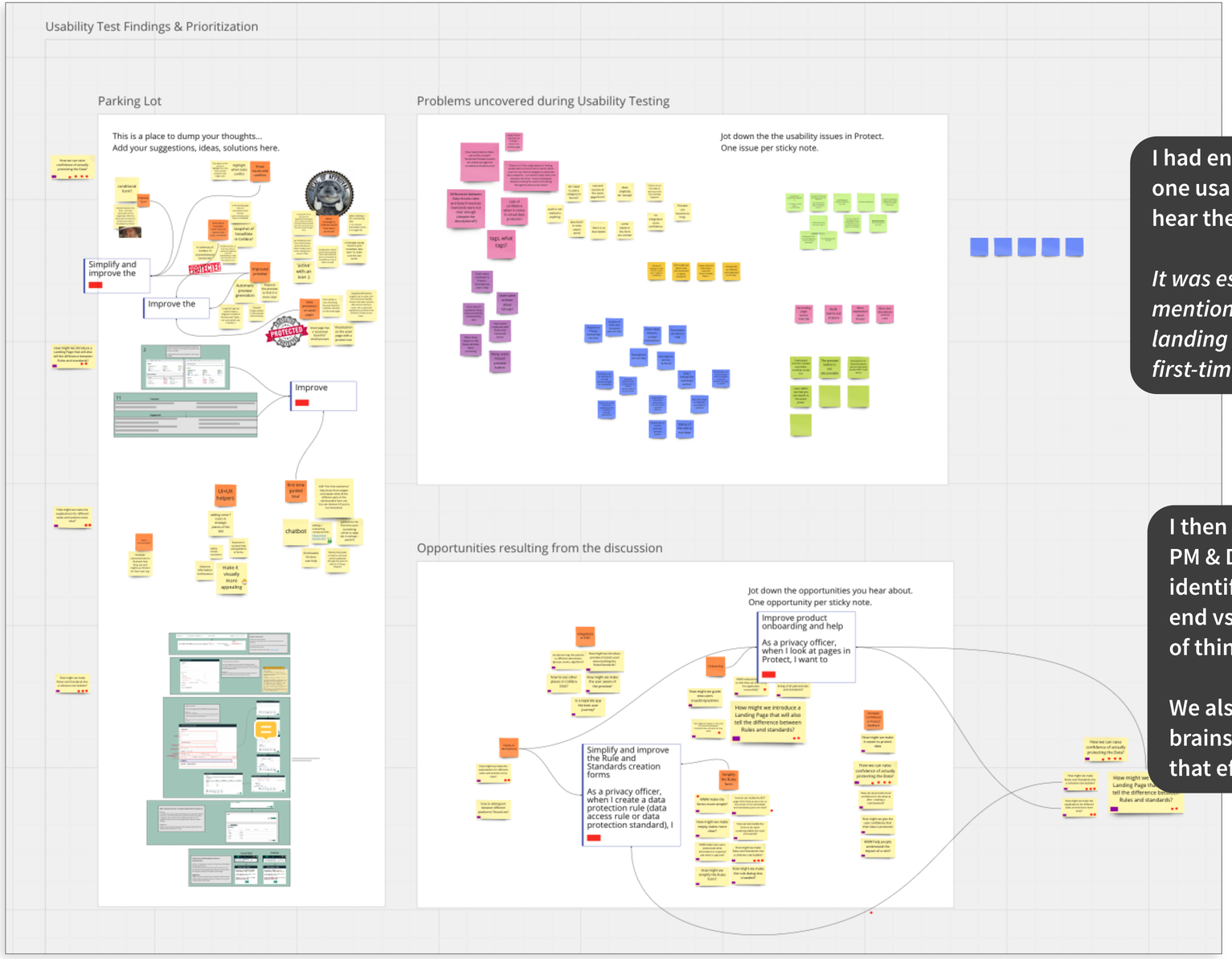
CONTENT IMPROVEMENTS

- Define, what to include in the description (on the landing page).
- Rename tabs with more descriptive labels.
- Consistent titles and labels throughout the application.
- Shift Recents down and change title of the page to match with the tab name.

Forms
- Modal titles, we don't need Define Rule/Standard at the top
- Button labels
- Add a default name description
- Add description about Rules, Standards to re-emphasize their purpose
- Divide Rule form drop downs into smaller chunks to make it more understandable

Content and its structure was identified as one of the major pain points in the application. Users were confused and unsure about certain descriptions, defintions or labels in the application. So I invited a technical writer to a small workshop. The aim was to identify areas for content improvement, need for restructuring things and consistency through the application.

BRAINSTORM IMPROVEMENTS WITH PM & DEVELOPERS



I had encouraged all the developers to attend at least one usability session, which they did! It was nice to hear they benefitted from that experience.

It was especially rewarding when one developer mentioned "I can now see why the description and the landing page might have felt confusing to the user. As a first-time user I realized it's all very confusing for them."

I then co-facilitated a brainstorming workshop with PM & Devs to identify areas of improvement. We identified problems and categorized them as front-end vs. back-end effort, size of effort, reprioritization of things on the roadmap.

We also talked about certain problems, and brainstorm possible very-high level solutions, what that effort would look like, and technical challenges.

IDENTIFIED AREAS OF IMPROVEMENT

We prioritized improvements and additions to improve the usability score of the product.

- Content - easy from a dev effort perspective.
  Min effort, Max value.
  - Clearer and consice definitions.
  - Consistent labels.

- Improvements to landing page.
- Improvements to rule creation form
- Identifying and correcting components that are inconsistent with the design system.

- Next set of intiatives to focus for building more trust with the product and increasing value/desirability of the product.

IDENTIFIED AREAS OF IMPROVEMENT

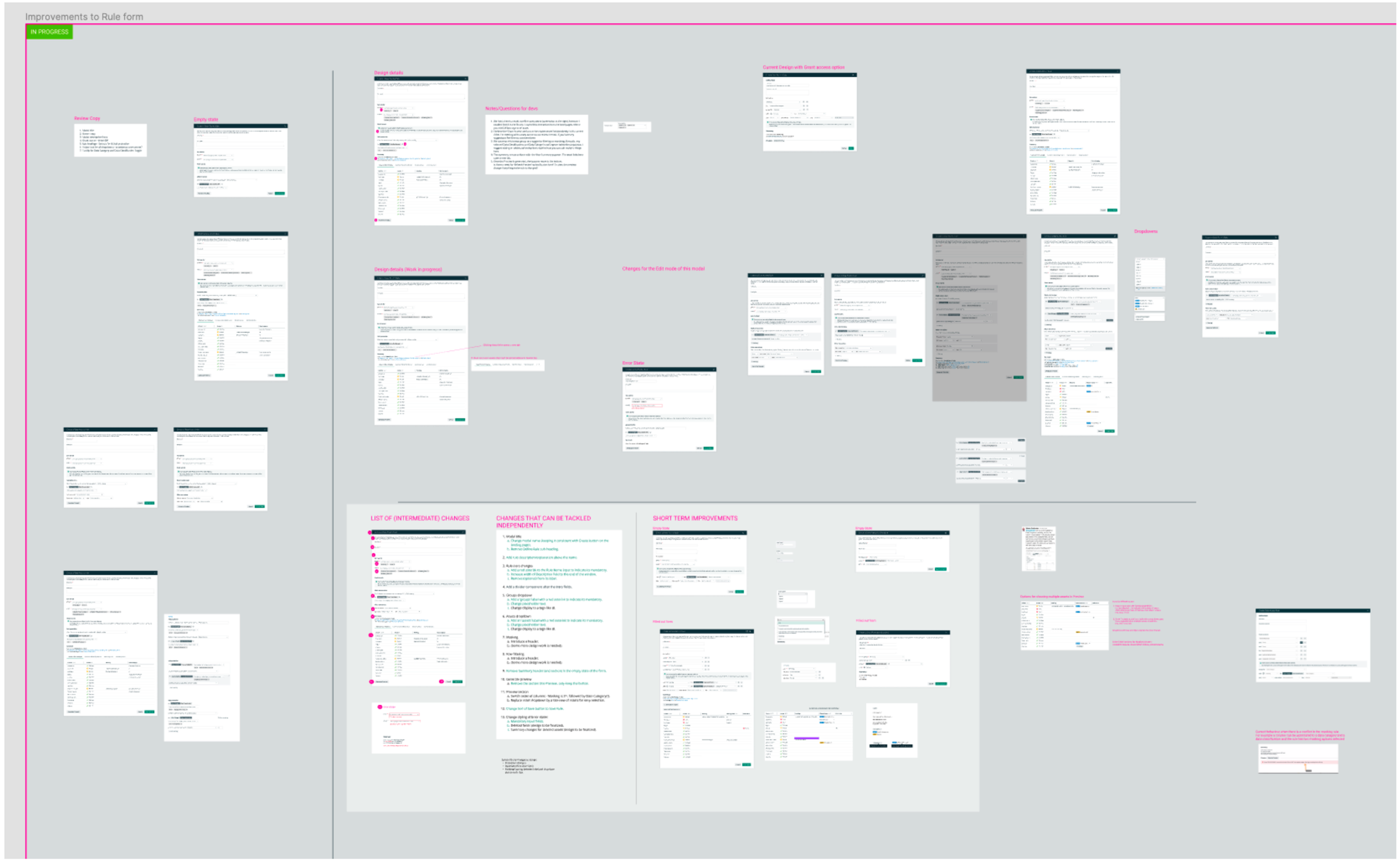
We prioritized improvements and additions to improve the usability score of the product.

- Content - easy from a dev effort perspective. **surface-level fix**
  Min effort, Max value.
  - Clearer and consice definitions.
  - Consistent labels.

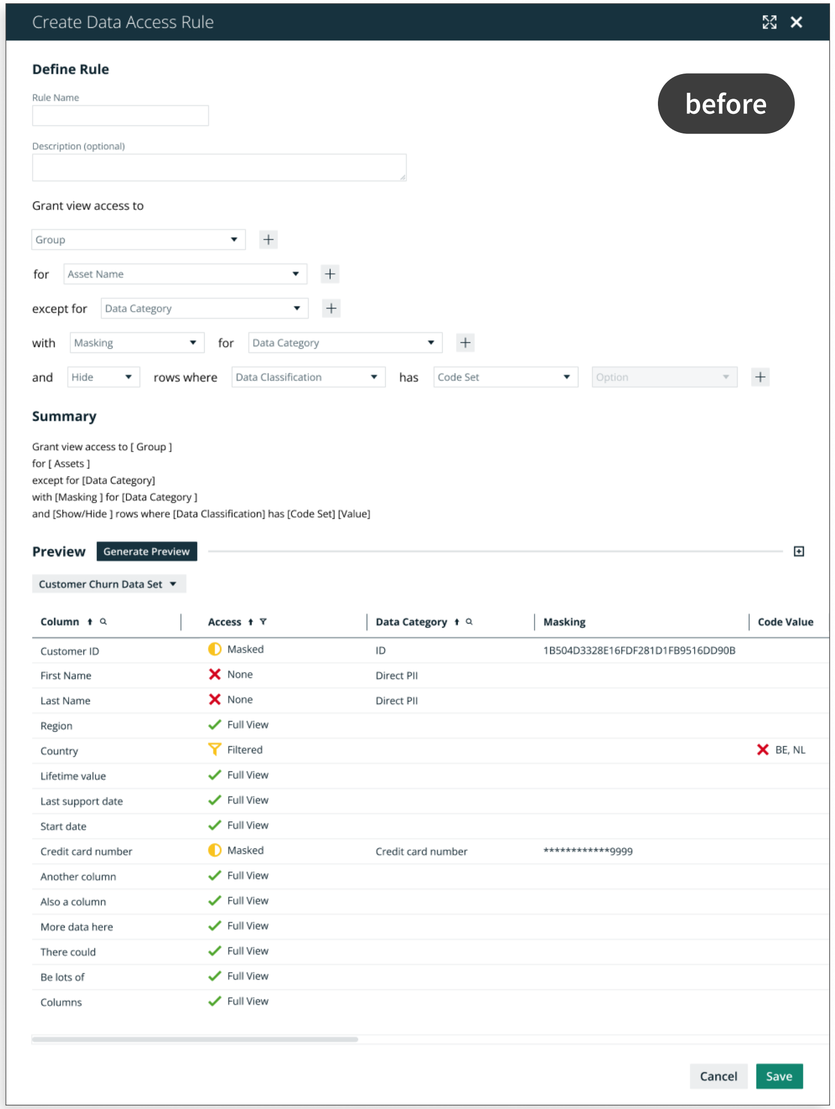
- Improvements to landing page.
- Improvements to rule creation form **more thinking required, but relatively easy**
- Identifying and correcting components that are inconsistent with the design system.

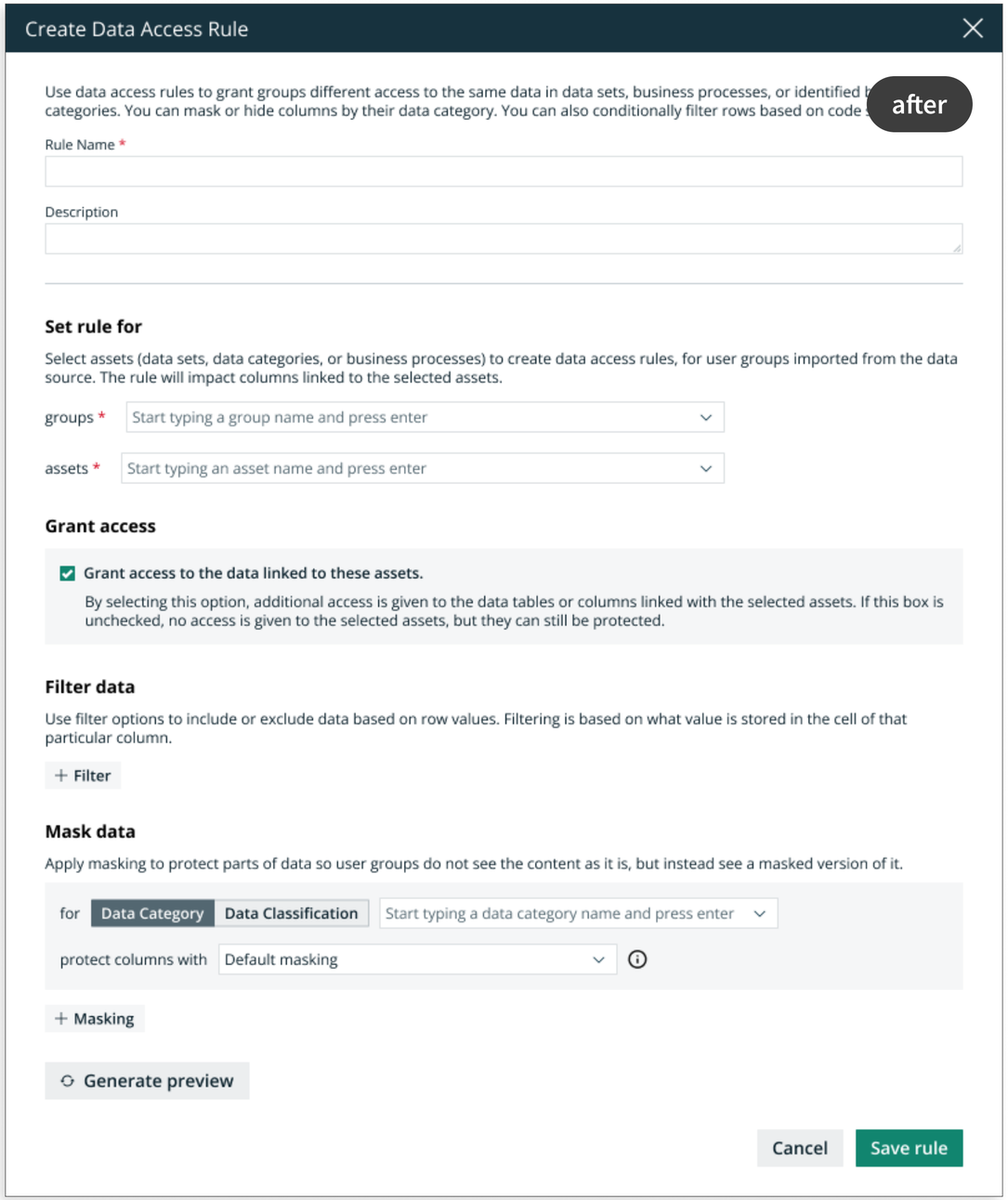
- Next set of intiatives to focus for building more trust with the product and increasing value/desirability of the product. **deep-thinking and collaboration is necessary, dev effort very high**

DESIGN EXPLORATIONS FOR RULE CREATION FORM

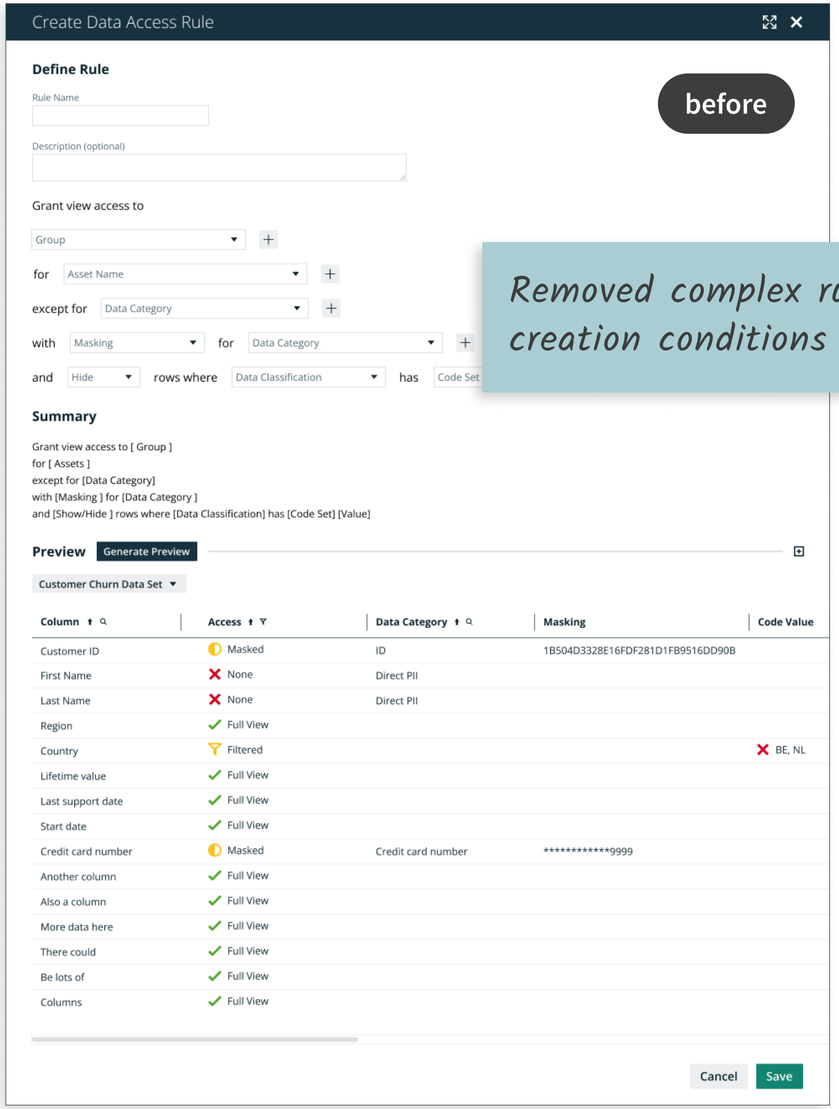


RULE CREATION FORM UPDATES





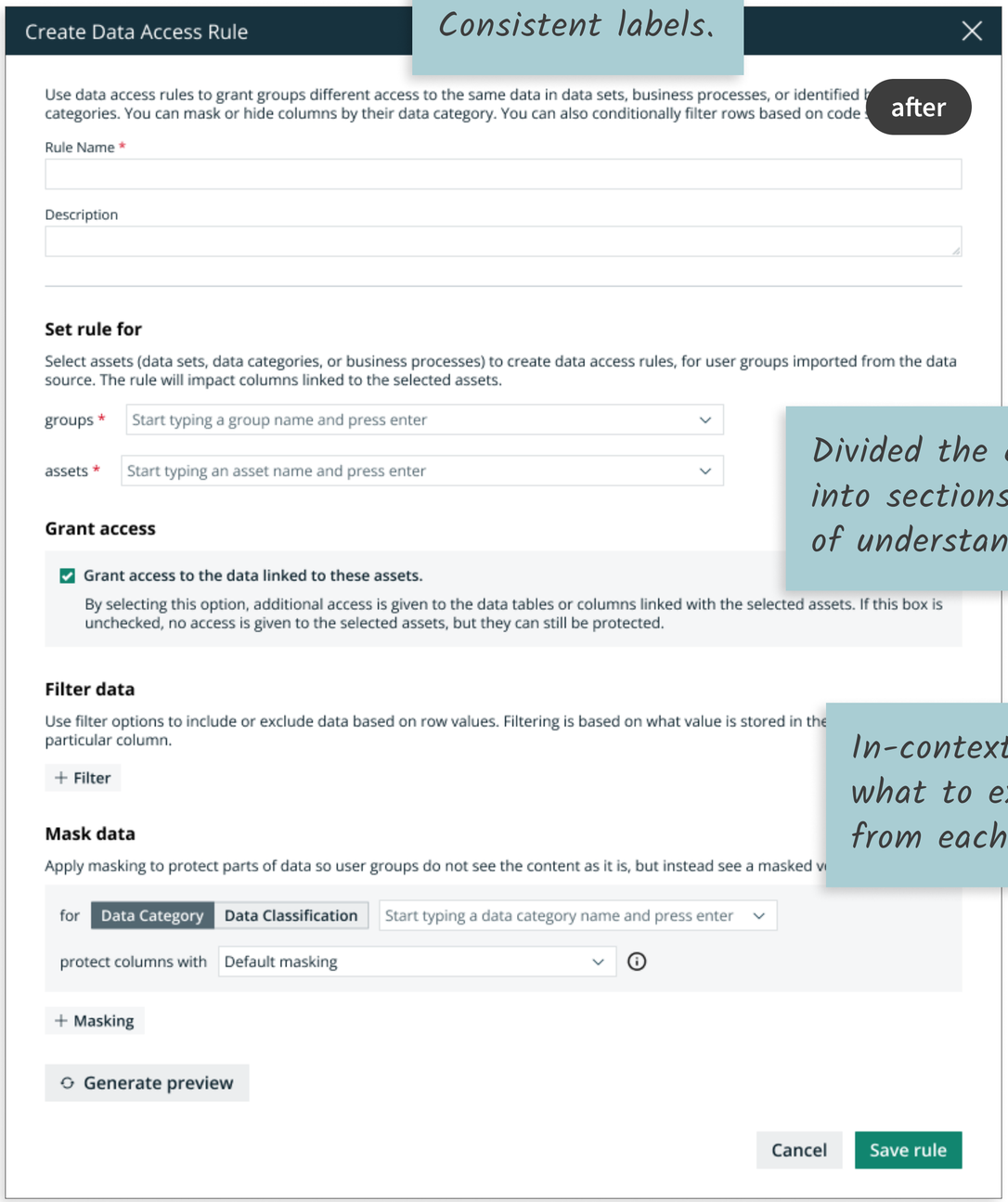
RULE CREATION FORM UPDATES



before

Removed complex rule creation conditions

Consistent labels.

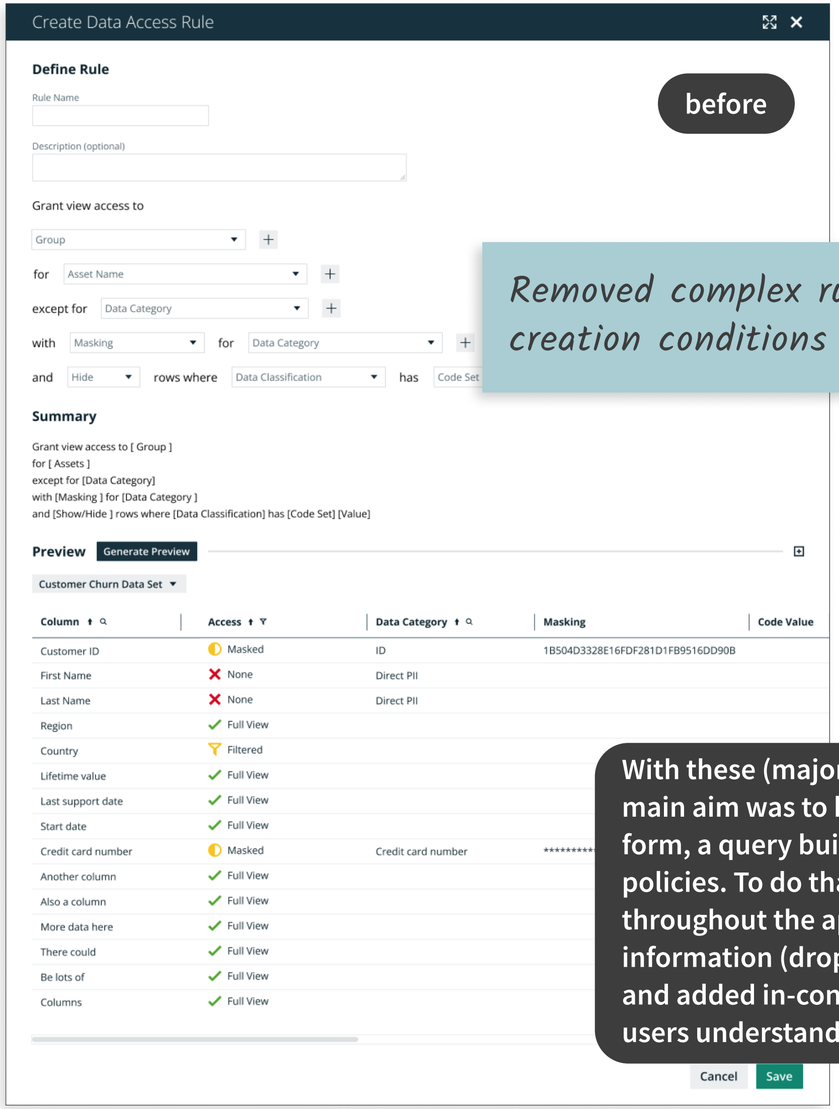


after

Divided the content into sections for ease of understanding.

In-context help for what to expect from each section.

RULE CREATION FORM UPDATES



before

Removed complex rule creation conditions

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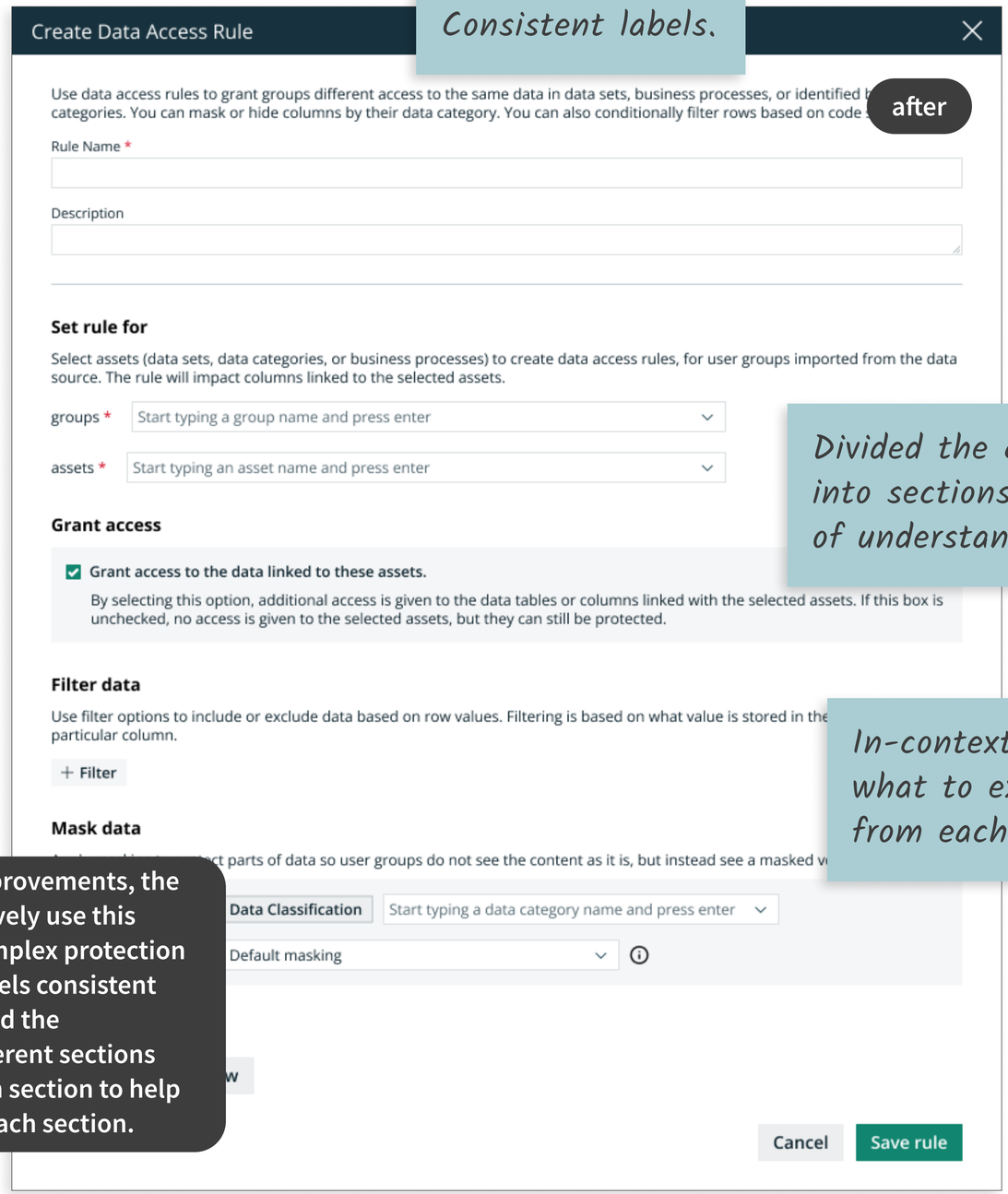


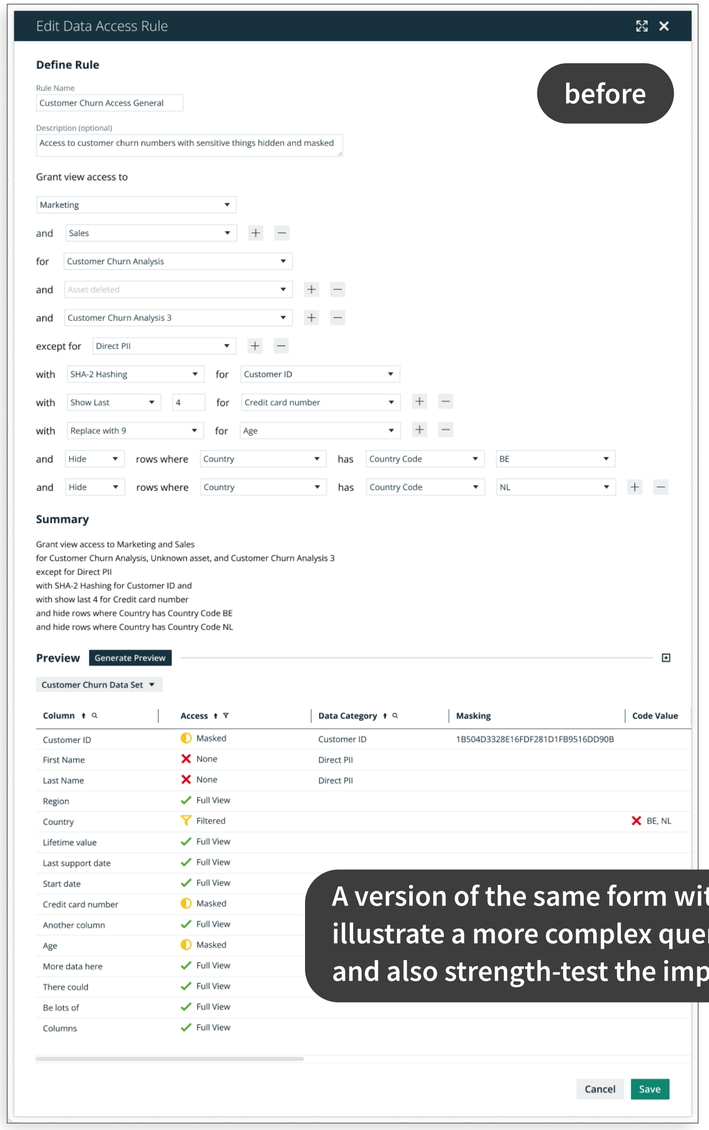
after

Divided the content into sections for ease of understanding.

In-context help for what to expect from each section.

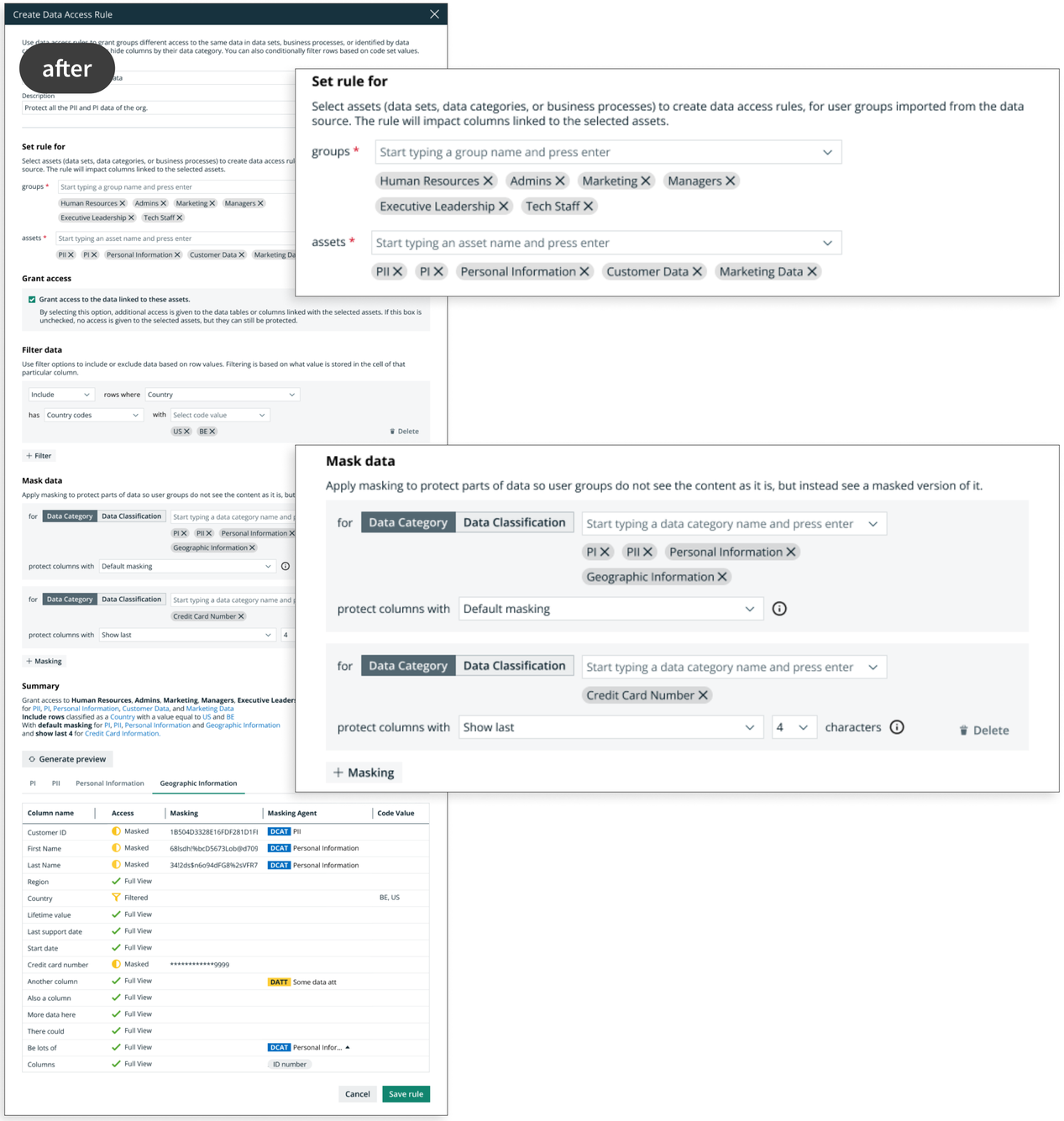
With these (majorly) front-end improvements, the main aim was to help users effectively use this form, a query builder to create complex protection policies. To do that, I made the labels consistent throughout the application, divided the information (dropdowns) into different sections and added in-context help for each section to help users understand the purpose of each section.

RULE CREATION FORM UPDATES



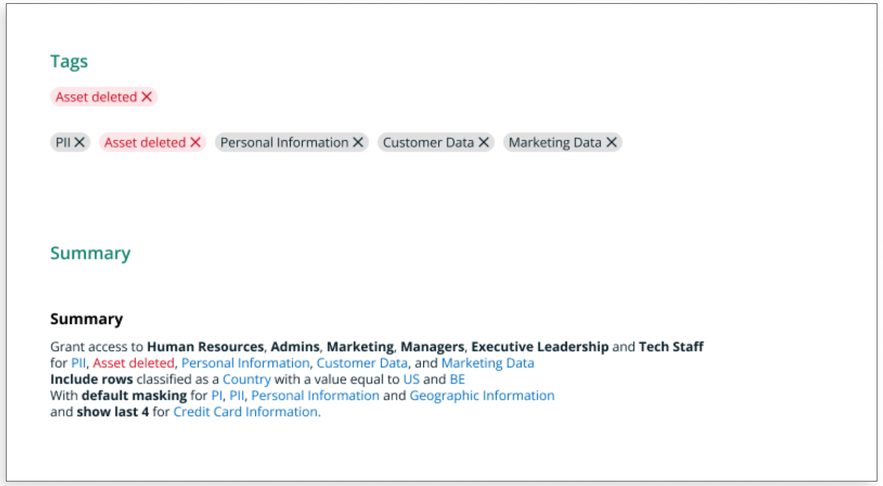
before

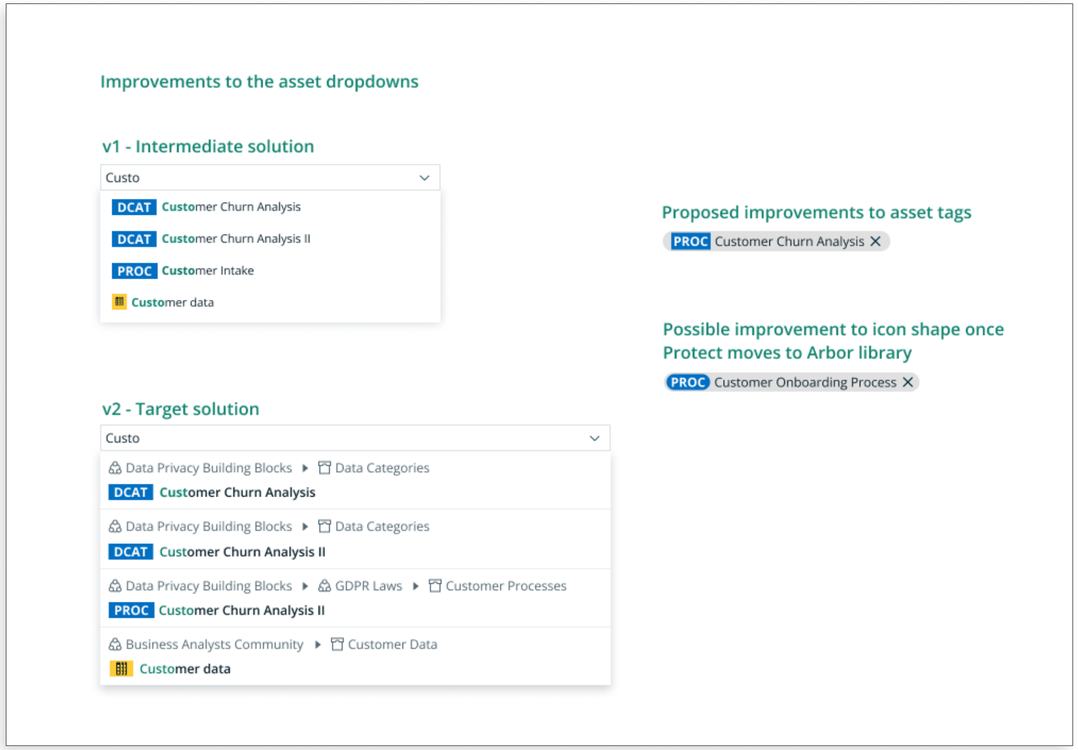
A version of the same form with populated fields to illustrate a more complex query to the developers and also strength-test the improved UI patterns.

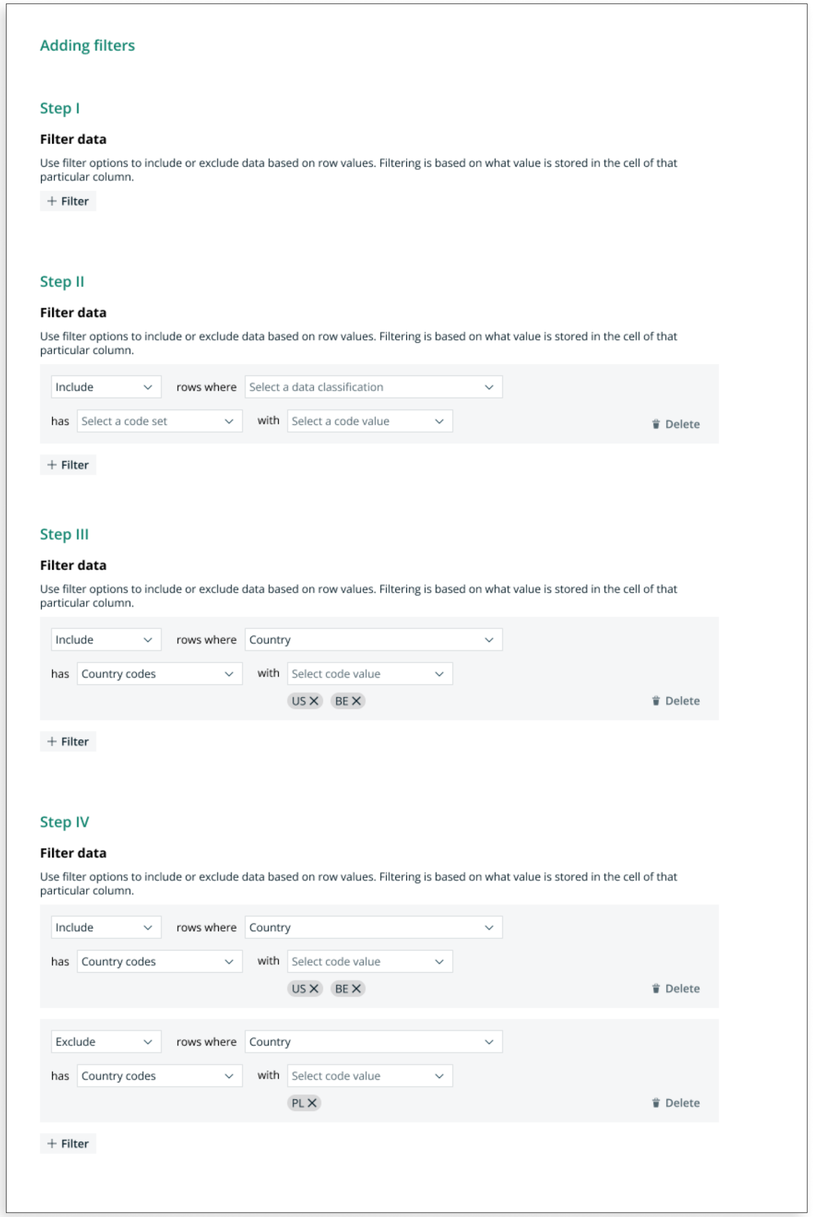


DETAILS

Examples of detailed notes for certain specific sections of the form. The aim was be as unambiguous as possible and be precise with the acceptance criteria, and cover edge or error cases.





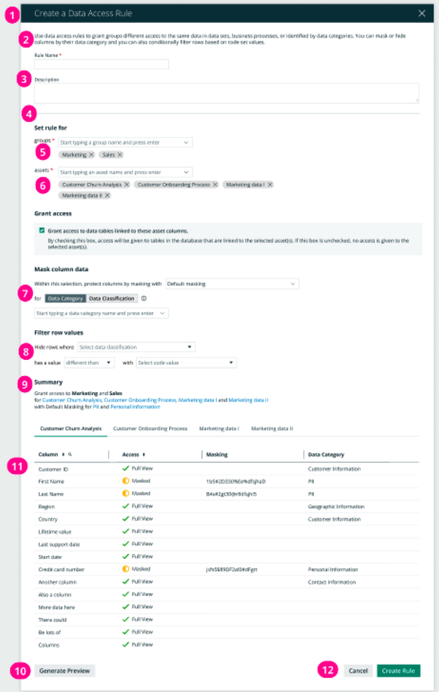


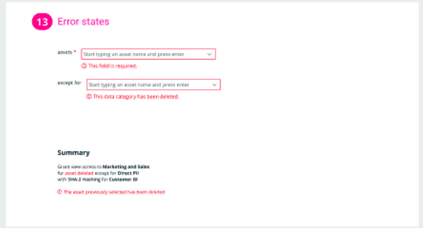
COMMUNICATING DESIGN DETAILS

Due to time constraints of the immediate release, all of these changes couldn't be accomplished at once, they had to be split into 2/3 stages.

I recommended an itemized list of changes that could be implemented immediately and the others could be postponed for later.

LIST OF (INTERMEDIATE) CHANGES



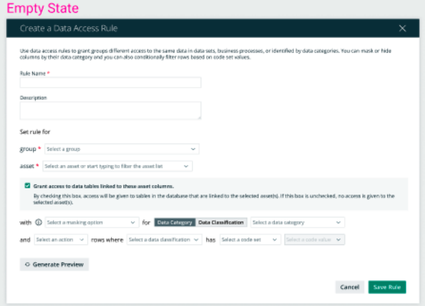


CHANGES THAT CAN BE TACKLED INDEPENDENTLY

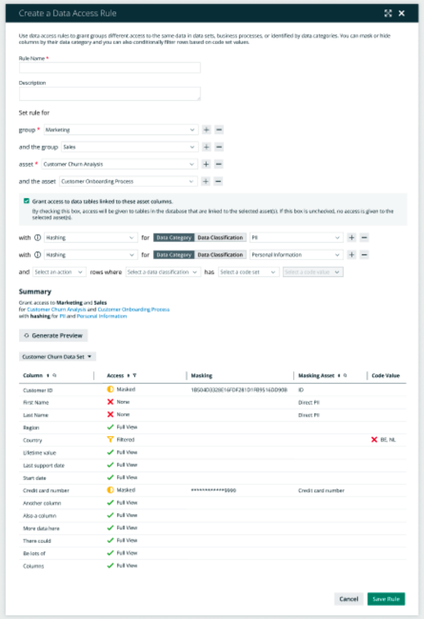
1. Modal title
   a. Change modal name (keeping it consistent with Create button on the landing page).
   b. Remove Define Rule sub-heading.
2. Add rule description/explanation above the name.
3. Rule intro changes
   a. Add a red asterisk to the Rule Name input to indicate its mandatory.
   b. Increase width of Description field to the end of the window.
   c. Remove (optional) from its label.
4. Add a divider component after the Intro fields.
5. Groups dropdown
   a. Add a 'groups' label with a red asterisk to indicate its mandatory.
   b. Change placeholder text.
   c. Change display to a tags-like UI.
6. Assets dropdown
   a. Add an 'assets' label with a red asterisk to indicate its mandatory.
   b. Change placeholder text.
   c. Change display to a tags-like UI.
7. Masking
   a. Introduce a header.
   b. (Some more design work is needed).
8. Row filtering
   a. Introduce a header.
   b. (Some more design work is needed).
9. Remove Summary header (and section) in the empty state of the form.
10. Generate preview
    a. Remove the section title Preview, only keep the button.
11. Preview section
    a. Switch order of columns - Masking is 3rd, followed by Data Category(?).
    b. Replace asset dropdown by a tab-view of assets for easy selection.
12. Change text of Save button to Save Rule.
13. Change styling of Error states
    a. Mandatory input fields.
    b. Deleted fields (design to be finalized).
    c. Summary changes for deleted assets (design to be finalized).

SHORT TERM IMPROVEMENTS

Empty State



Filled out form



DOCUMENTING DESINGN SPECS

One final step was documenting all the details for the design. For this form, I jotted down important notes and design variations relevant to each section in the form for hand-off. This was the final deliverable.

This version will be available in the Novemeber release of the product.

Rules Modal - FINAL DESIGNS

Data Access Rules - Final designs and details

PART II – DEVELOPING DESIGNS FOR INTEGRATION OF PROTECT WITH ANOTHER COLLIBRAAPPLICATION

ASSET PAGES IN COLLIBRA

- Data is ingested in Collibra and stored in the form of assets.
  For eg. datasets, tables, columns exist as different types of assets in the Collibra platform.

- Each asset has a dedicated page which provides more meta data about it.

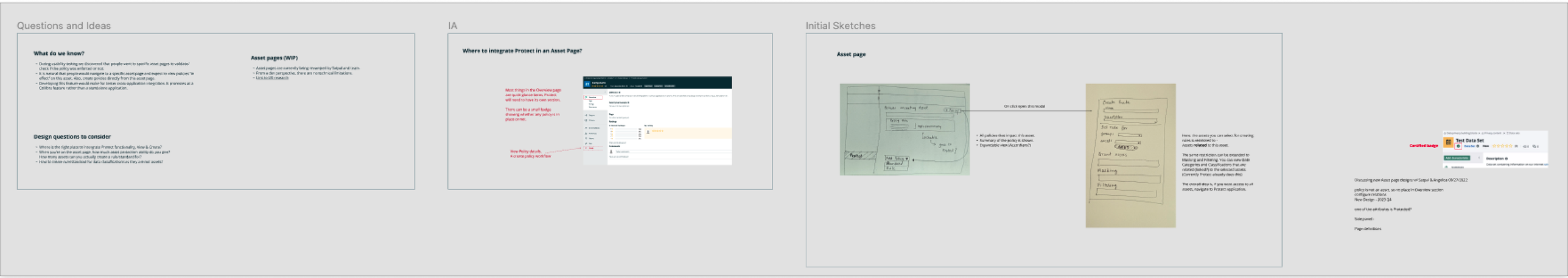
- Asset pages belong to a different part of the Collibra platform and are owned by a different team.

INTEGRATING PROTECT WITH ASSET PAGES

- In the usability test, we observed that people visited asset page of a particular assets(s) to validate whether the rule (protection) they created in Protect was implemented or not.
  (It was clear, they wanted some feedback from Collibra' that helped them build confidence in the fact that their data will now indeed be protected because of the rule they just created.)

- Another use-case we had parallelly identified was - Data Consumers.
  eg. an analyst or a data scientist who are interested in a particular data set, they visit the asset page and want to know if they have full, partial or no access to that data.

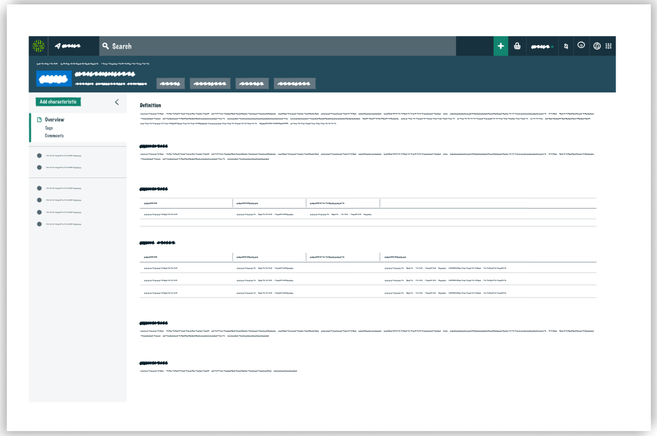
INTEGRATING PROTECT WITH ASSET PAGES



- As step one, I began gathering relevant information for this feature. I jotted down the user goals and available data points.

- I used sketches to share my ideas with the Asset Pages designers. I wanted their feedback and thoughts about how Protect could be integrated. I also wanted to see how Protect would fit the Asset Page re-design that they were envisioning.

LOW FIDELITY DESIGN EXPLORATIONS

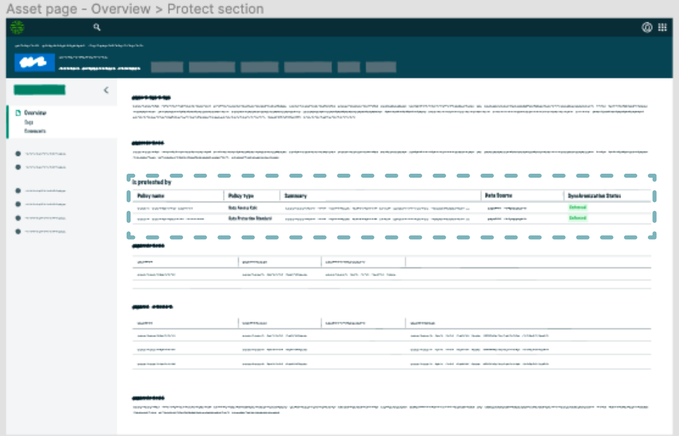


I started working in low fidelity, exploring ideas, still thinking of questions for different stakeholders.

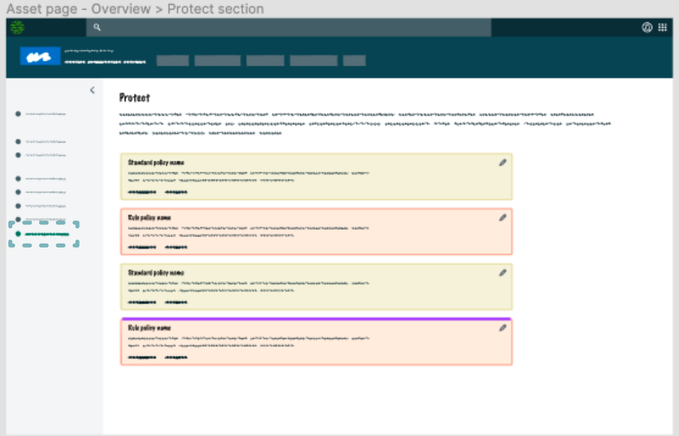
I discussed feasibility of the different trigger points with the developers.

Exploring different design patterns and trigger points for PROTECT

Asset page - Overview > Protect section



Asset page - Overview > Protect section



Asset page - Overview > Protect section

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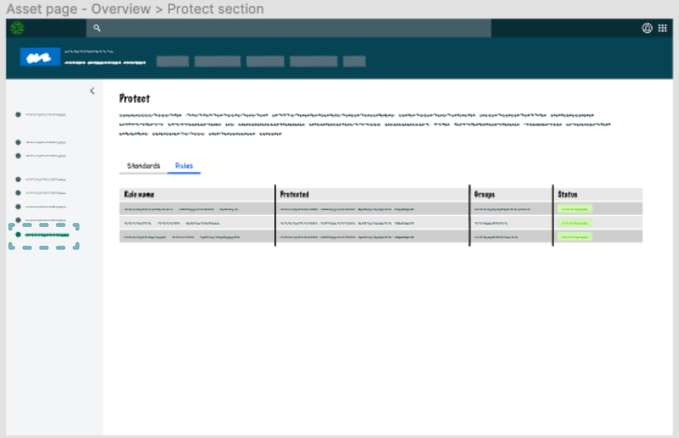
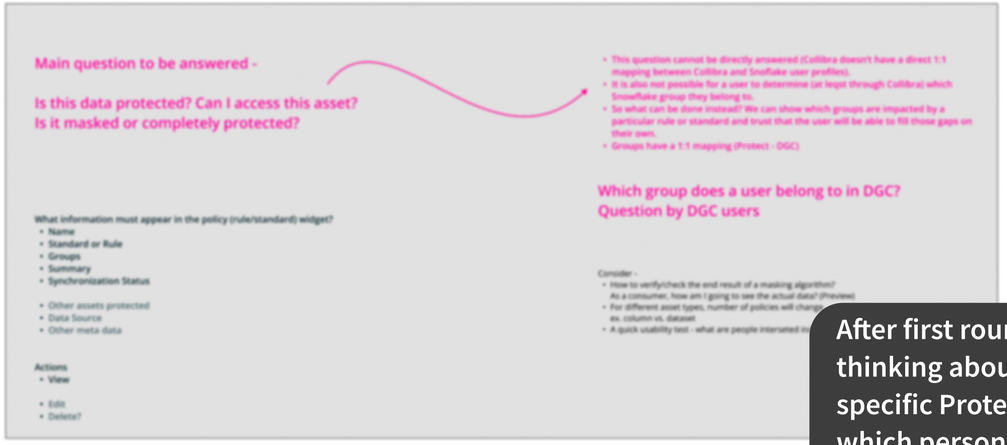
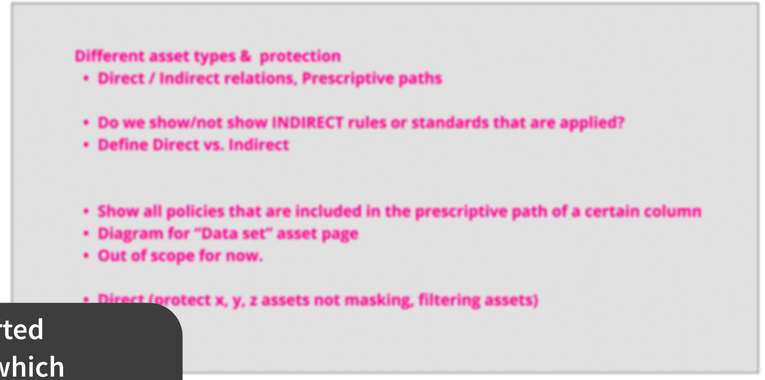


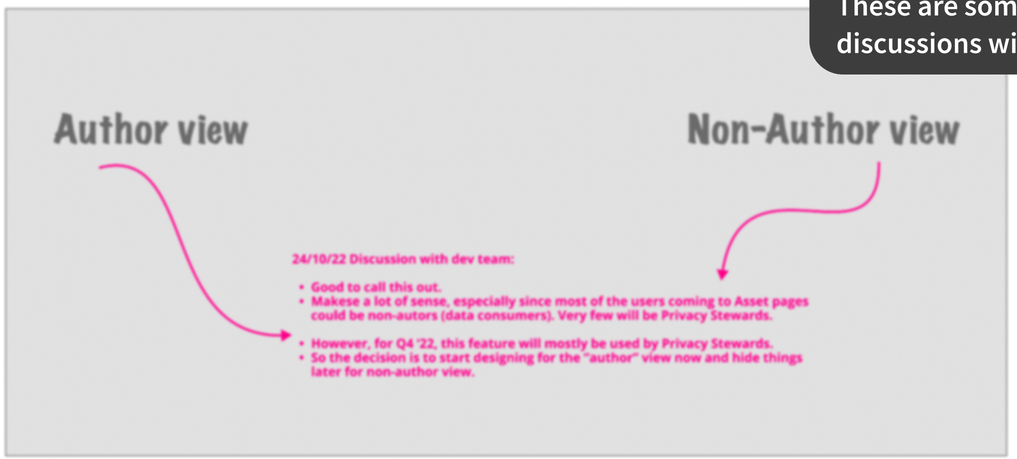
DISCUSSIONS WITH DEVS & PM

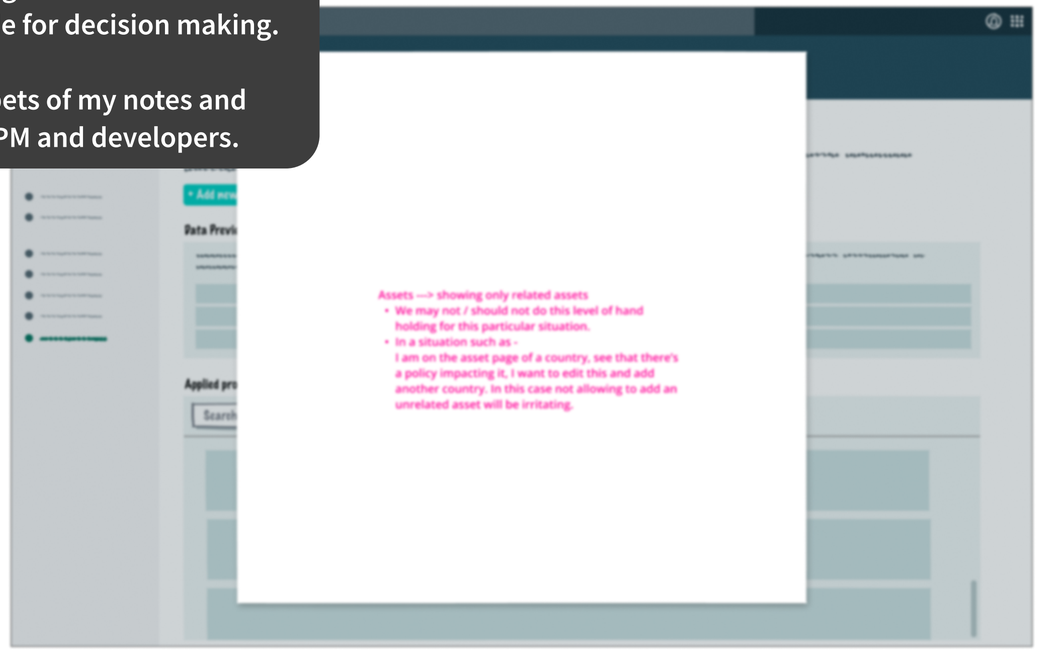




After first round of designs, I started thinking about more specifics - which specific Protect functionalities to integrate, which personas to target and what level of information to provide for decision making.

These are some snippets of my notes and discussions with the PM and developers.

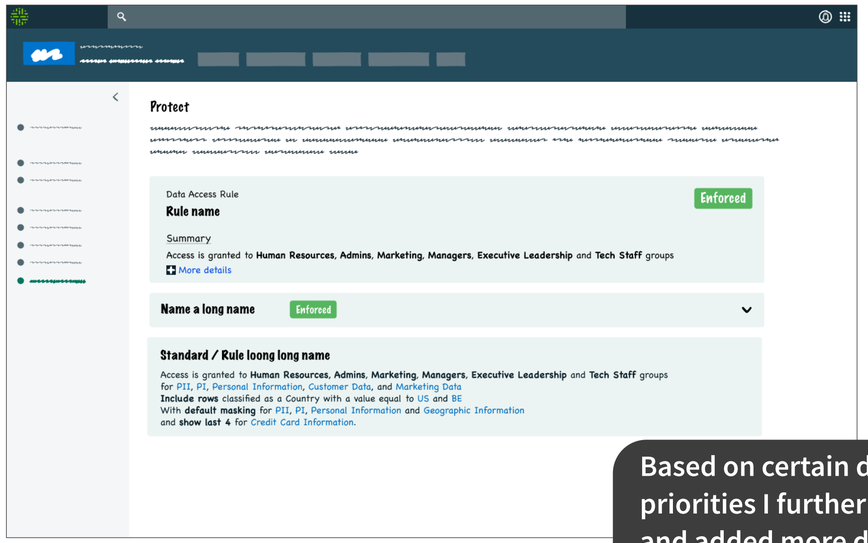


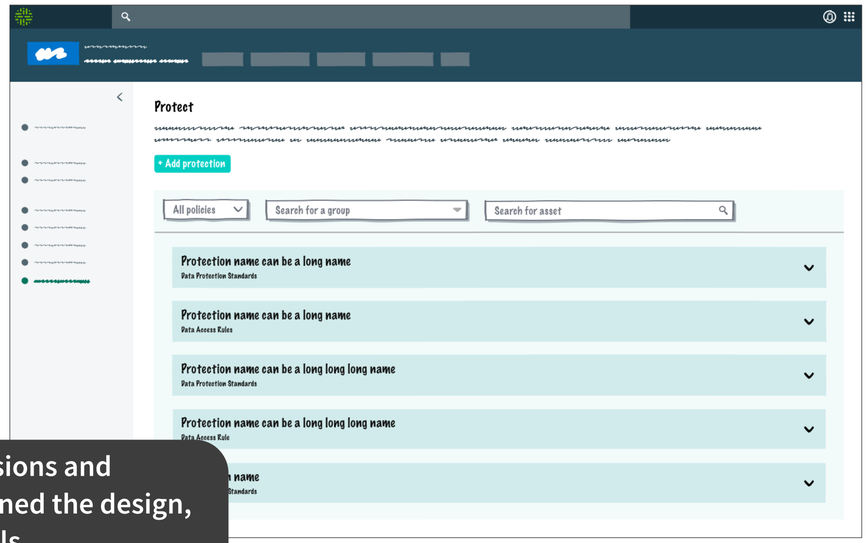


MID FIDELITY DESIGN EXPLORATIONS

Explorations to understand -

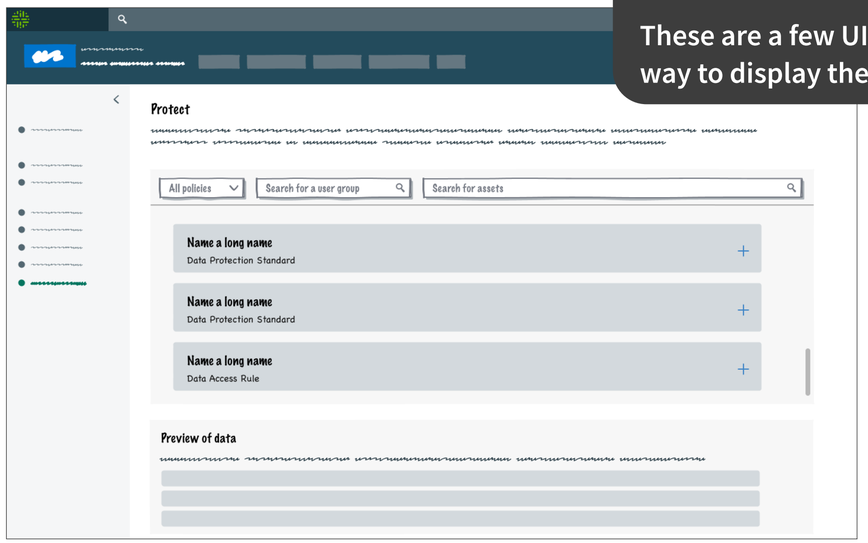
- What information needs to / can be showed here?
- What level of detail is necessary?
- Which actions are necessary, for which persona?

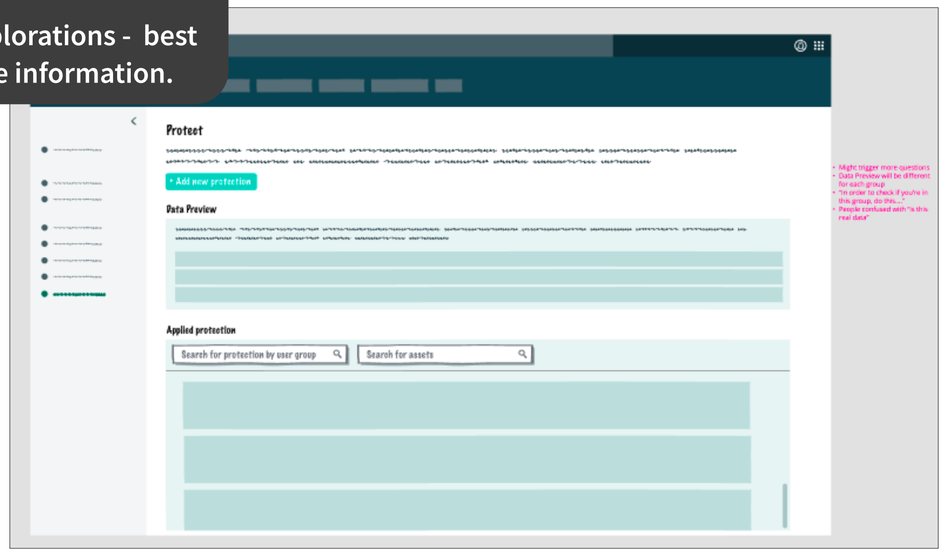




Based on certain decisions and priorities I further refined the design, and added more details.

These are a few UI explorations - best way to display the rule information.



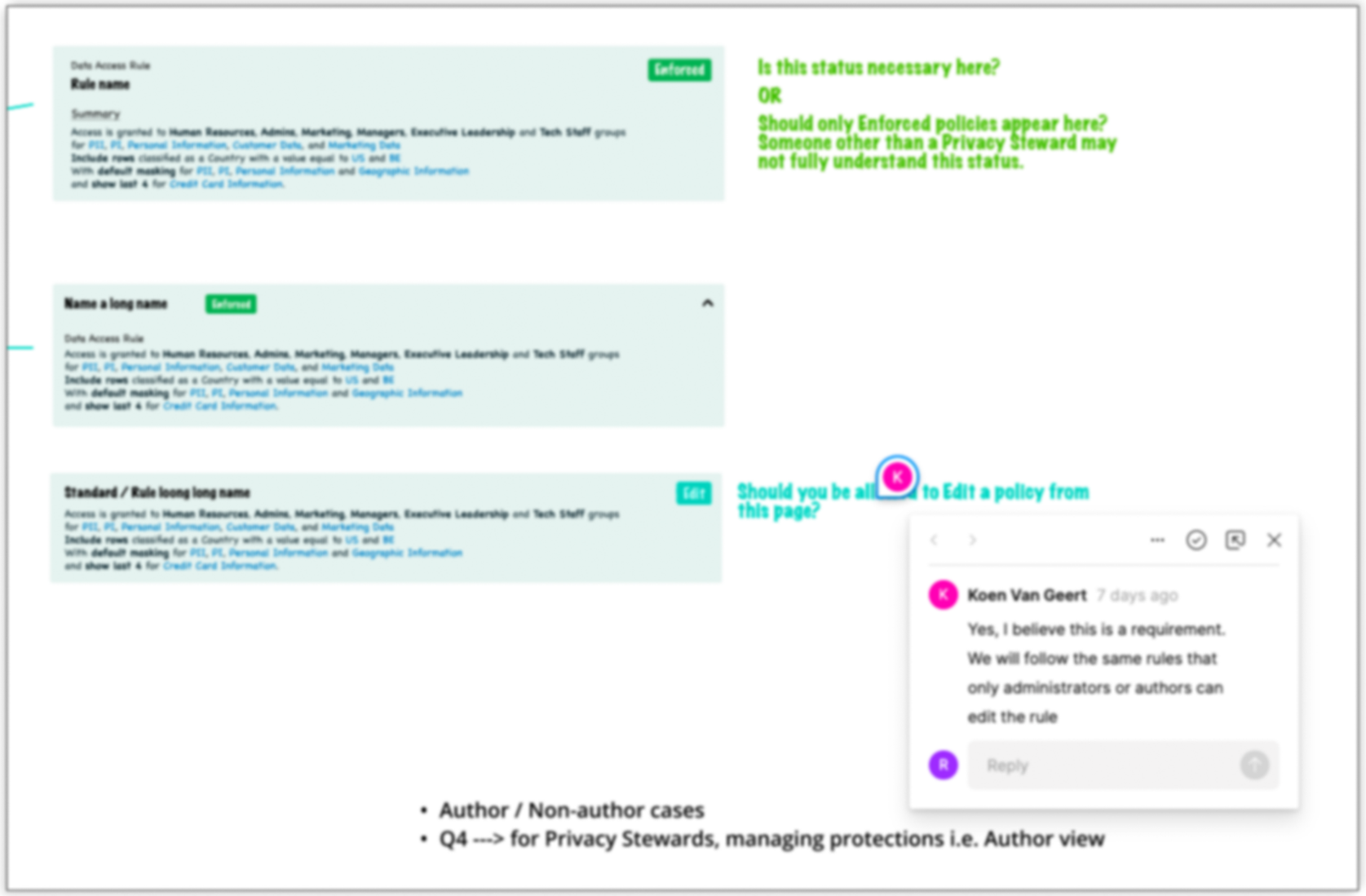


SPECIFICS OF A COMPONENT - EXPLORATION & DISCUSSION

Another example of explorations, prioritization and discussions.

These low fidelity designs gave me a chance to do frequent check-ins with the development team, and keep them informed about my direction. It proved to be a quick and efficient way to work.

Around this time, I stopped working on this project.



THANK YOU !