Cycle 2

In **Cycle 2**, our goal is to get Mathesar to a state where we can demo a simple end-to-end use case using the product by **July 15, 2022**.

Use Case

The director of a small library wants to use Mathesar to manage library operations. This involves:

- Adding and removing inventory
- Recording book checkouts and returns
- Running reports to simplify essential operations:
  - Tracking down overdue books
  - Seeing how the library usage is changing monthly
  - Promoting the latest acquisitions

User Goals

The user would like to migrate from tracking data in a spreadsheet to a tool that makes it easier to:

- Enter data without mistakes
- Look up items easily
- Run reports on existing data

For example, given a patron who wants a specific title (by a given author), the user wants to be able to find an available copy and link it to them via a check out.

About the User

- Someone else has set up a Mathesar instance for the user, they are using the frontend interface.
- The user is an expert at managing libraries and knows what kind of data would be useful for them.
- The user is not familiar with database terminology or SQL.
- The user is somewhat familiar with spreadsheets, but not an expert.
- The user is used to using web applications (e.g. email, Facebook, etc.)

Our Goals

The Mathesar team's goals are to demonstrate:

- The ease of importing data into the product.
- The value of structuring your data into different tables
- The value of data types.
- The ability to easily fix data modeling errors.
- The power of querying as a lookup paradigm.
- The power of querying as a report generation paradigm.
- The ease of generating usable reports using structured data.

Also, we want to **emphasize user experience**, show users how easy it is to do things.

Note

Our goal is to create a compelling broad strokes demo, *not* to make the product ready for use. For example, in order to be *ready to use*, we will need user authentication, the ability to clean up messy data, handling edge cases, etc. Those are not prioritized in this cycle because they're too basic to be impressive in a demo.

We will prioritize usefulness in future cycles.

Starting Conditions

For the demo, we assume:

- The user has access to a Mathesar instance that is set up.
- There are no tables and schemas other than the *public* schema
- The user has two spreadsheets in the following formats:

	# id	title	isbn	author_first_n...	author_last_n...	author_website	publisher	# publication_y...	? acquisition_d...	? acquisition_pr...
1	1	Begin Act West One...	1-78132-991-5	Kelly	Stephenson	https://stephenson....	Daniels-Ray	1,901	1973-10-10 AD	13.81
2	2	Film Party Suggest ...	0-520-35216-5	Jeffrey	Gutierrez	https://gutierrez.com	Garcia, Walton and ...	1,981	1985-12-18 AD	2.58
3	3	Might Media Whom ...	0-653-41523-0	Joseph	Jackson	https://josephjackso...	Wood, Whitaker and...	1,940	1960-11-27 AD	12.38
4	4	Think Anyone Along...	1-5291-1308-3	Kimberly	Williams	NULL	Daniels-Ray	1,921	1983-09-11 AD	
5	5	Think Anyone Along...	1-5291-1308-3	Kimberly	Williams	NULL	Daniels-Ray	1,921	2006-05-20 AD	
6	6	One Heart Oil Half T...	0-564-15589-6	Theodore	Ramos	https://ramos.com	Manning and Sons	1,944	1944-11-20 AD	
7	7	Start Sign East Ope...	1-936802-33-3	Amanda	Vega	https://amandavega...	Porter Ltd	1,970	1976-07-06 AD	
8	8	Start Sign East Ope...	1-936802-33-3	Amanda	Vega	https://amandavega...	Porter Ltd	1,970	2008-06-14 AD	
9	9	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2011-09-10 AD	
10	10	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1973-10-20 AD	
11	11	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2022-01-18 AD	
12	12	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1997-06-29 AD	
13	13	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2001-12-16 AD	
14	14	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1984-06-20 AD	
15	15	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2007-11-28 AD	
16	16	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1972-12-01 AD	
17	17	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2021-11-21 AD	
18	18	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2015-05-10 AD	
19	19	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2008-07-30 AD	
20	20	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2015-05-30 AD	
21	21	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2022-03-15 AD	
22	22	Left Again Wide On...	1-4129-7399-6	Jeffery	Blake	https://jefferyblake.i...	Keller, Knight and D...	2,013	2019-09-07 AD	
23	23	White Sea Wall Stock	0-689-04878-5	Amanda	Vega	https://amandavega...	Daniels-Ray	2,020	2022-02-14 AD	
24	24	White Sea Wall Stock	0-689-04878-5	Amanda	Vega	https://amandavega...	Daniels-Ray	2,020	2020-02-15 AD	
25	25	Box Break Happy O...	0-04-524875-3	Rachael	Johnson	NULL	Ellis-Webb	2,002	2005-08-22 AD	
26	26	Prepare Own Manag	0-494-89550-0	Louis	Nichols	https://louisnichols	Garcia, Walton and	1,922	1994-07-05 AD	

Note

- These datasets are designed to include data of many different types: Text, Numeric, Integer, Date, Money, Email, URI, etc.
- There is visible repetition in the dataset, this will be helpful in demonstrating how Mathesar deduplicates data automatically

Note

These schemas are also intended to have a "Book ID" and "Patron ID" in the original spreadsheets, they are not shown here.

	# id	first_name	last_name	? email
1	1	Beth	Miller	bethmiller62@day.c...
2	2	Amber	Hunter	amber.h@johnson.net
3	3	Louis	Murphy	lmurphy@church-ni...
4	4	Gary	Stone	g.stone@rios.net
5	5	Scott	Beck	s.beck56@gomez.c...
6	6	Adam	King	a.king@harper.com
7	7	Tammy	Flores	tammy.flores15@sa...
8	8	Laura	Williams	laurawilliams@yang....
9	9	Anna	Serrano	a.serrano@gutierrez...
10	10	Austin	Mcintosh	austin.m@lewis.biz
11	11	Karen	Perez	kperez77@howe.com
12	12	Todd	Myers	tmyers72@guerra.info
13	13	Jerry	Gill	jgill@jones-henders...
14	14	Allison	Mcknight	allisonmcknight94@...
15	15	Bryan	Obrien	bryano@hodge-lyon...
16	16	Annette	Castaneda	annette.castaneda4...
17	17	Tanner	Hernandez	thernandez@taylor.i...

Storyboard introduction

The next part of this document is a storyboard for the user flow. The goal is to get everything in the storyboard working by the end of the cycle.

Structure

- **Image**: Illustrates the action happening in this part of the storyboard. It could be a placeholder, product screenshot, wireframe, or prototype screenshot. It is not meant to be final, designs will be finalized during the cycle.
- **What's happening?**: Explains the actions the user is performing.
- **Design intentions**: Explains what we're trying to demonstrate or showcase here.
- **Design work needed**: Pending design work we need to do during the cycle.
- **Engineering work needed**: Pending engineering work we need to do during the cycle.
- **Assigned to**: The team that will be working on this screen.

Sticky notes are also used for additional notes that don't fit into this structure

Team A

Mukesh
Sean

Team B

Dominykas
Pavish

Support

Ghislaine
Kriti
Brent

- **Priority**: The priority of this part of the flow to the use case

1 Essential

2 Important, but can be cut if needed

3 Nice to have

- **Action**: The type of action this screen is part of (used to group screens together)

e.g. **1. Schema Creation**

1

What's happening?

The user opens Mathesar for the first time and sees a "getting started" page

Design intentions

- Introduce new users to Mathesar
- Help users get started by creating a new schema
- Explain *public* schema that already exists

Design work needed

The entire page

Engineering work needed

The entire page. Primarily frontend.

Assigned to

Team A

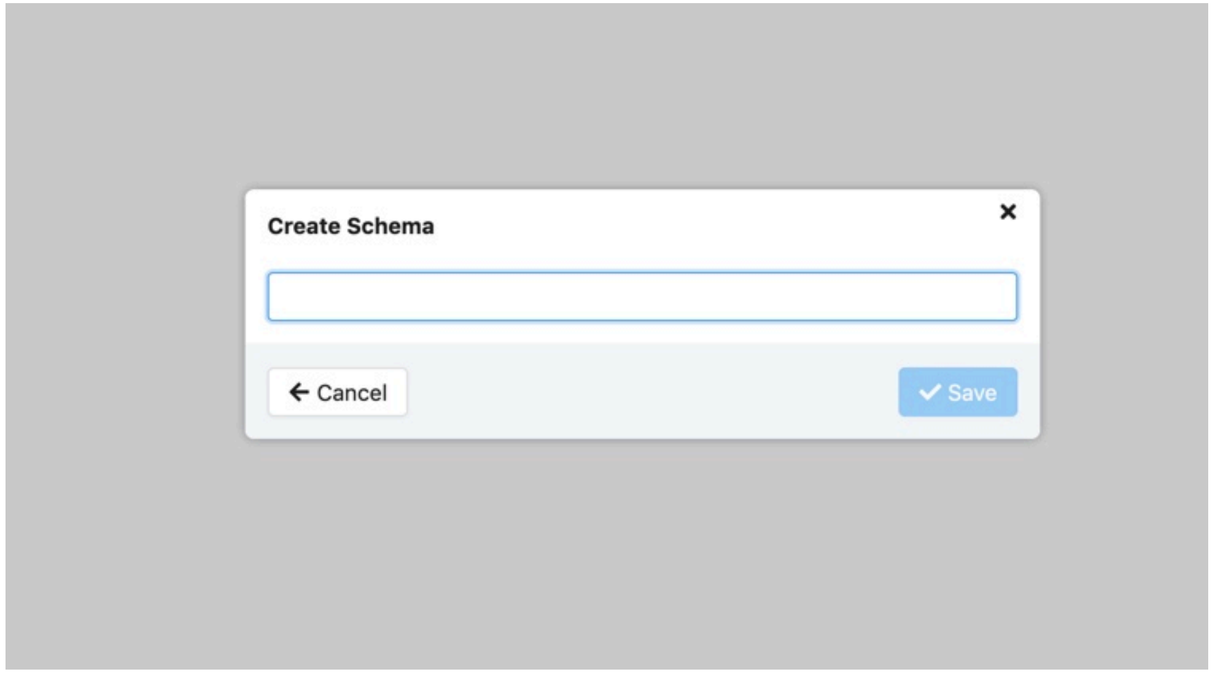
Priority

2

Action

1. Schema Creation

To Be Designed



2

What's happening?

The user creates a "Library" schema

Design intentions

The purpose of this screen in the demo is to introduce the concept of the schema (called "app" in dabbleDB or "base" in Airtable). Introducing concepts early in the design process can help users and the demo audience anticipate the application's flow.

In this case, we want to emphasize that the schema will contain the logic, tables, and views for a specific task, and that all objects will be related to it. In this case, to manage a library by adding books, users, and attributes of those books.

Design work needed

The entire page

Engineering work needed

The entire page. Primarily frontend.

Assigned to

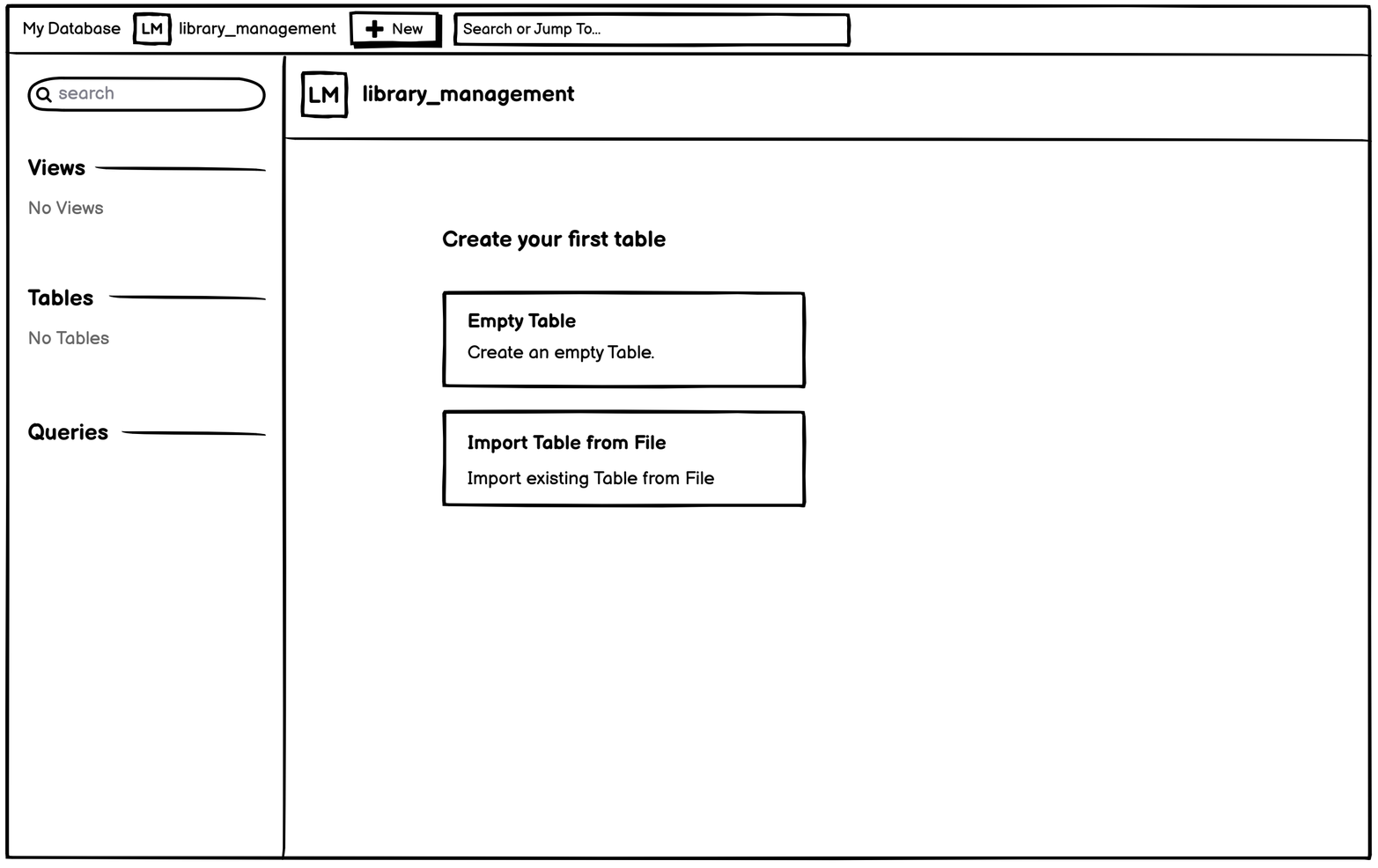
Team A

Priority

2

Action

1. Schema Creation



3

What's happening?

The user is directed to the homepage for the schema.

Design intentions

The purpose of this screen in the demo is to introduce the concept of the schema (called "app" in dabbleDB or "base" in Airtable). Introducing concepts early in the design process can help users and the demo audience anticipate the application's flow.

In this case, we want to emphasize that the schema will contain the logic, tables, and views for a specific task, and that all objects will be related to it. In this case, to manage a library by adding books, users, and attributes of those books.

Design work needed

The entire page

Engineering work needed

The entire page. Primarily frontend.

Assigned to

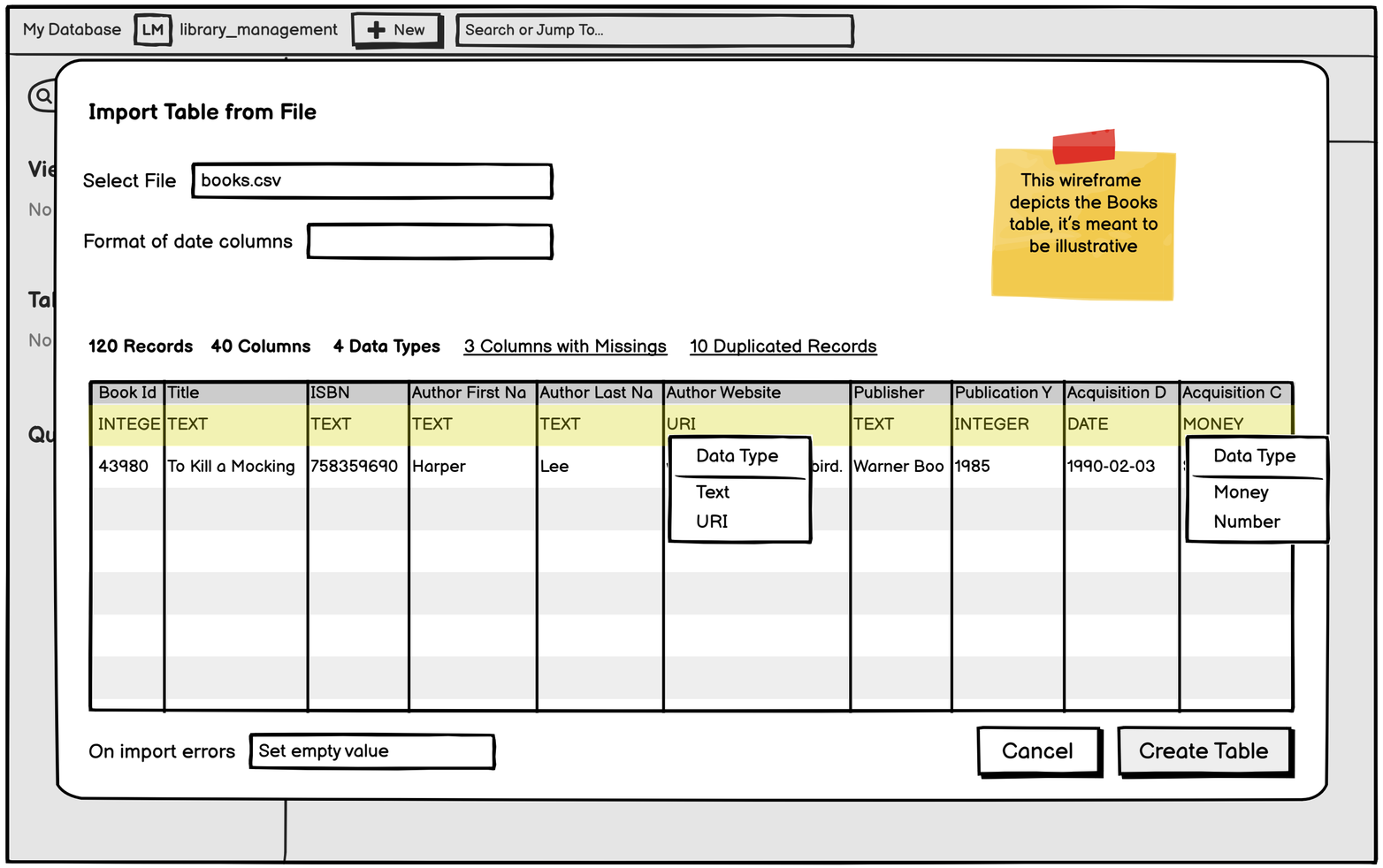
Team A

Priority

1

Action

2. Table Creation



4

What's happening?

The user imports Patrons data from their spreadsheet.

Design intentions

- Show off our inference
- Introduce data types and their benefits
- Allow user to confirm their data

Design work needed

Redesign current import workflow

Engineering work needed

Implement redesign.

Primarily frontend, might need backend support.

Assigned to

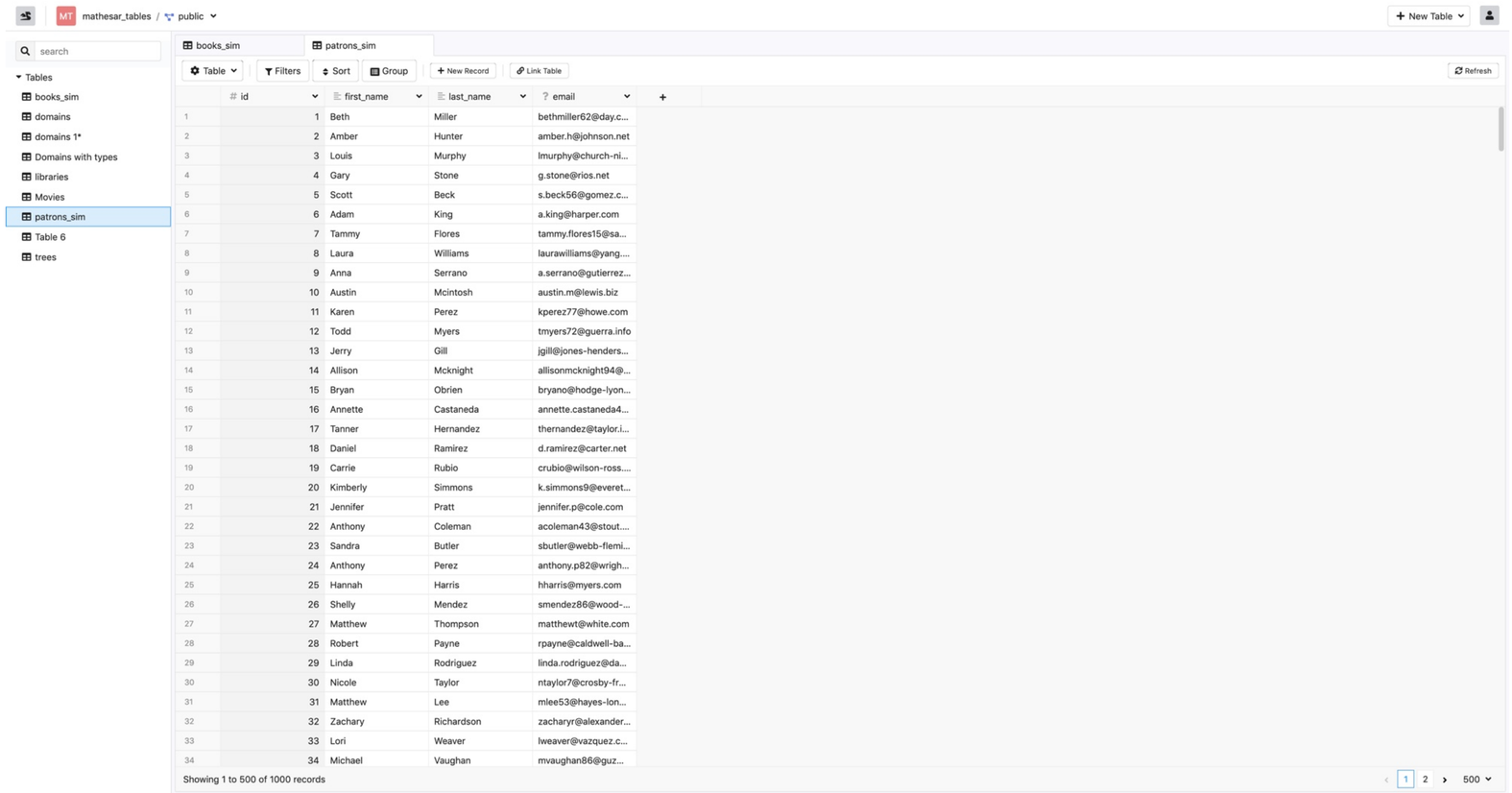
Team A

Priority

1

Action

2. Table Creation



5

What's happening?

The user is taken to the Patrons table after successful import

Design intentions

- Introduce users to the main Mathesar interface
- Introduce users to the concept of tables

Design work needed

Review whether current design meets intentions and improve as needed

Engineering work needed

- Implement design changes as needed
- Ensure that all featured data types work well

Assigned to

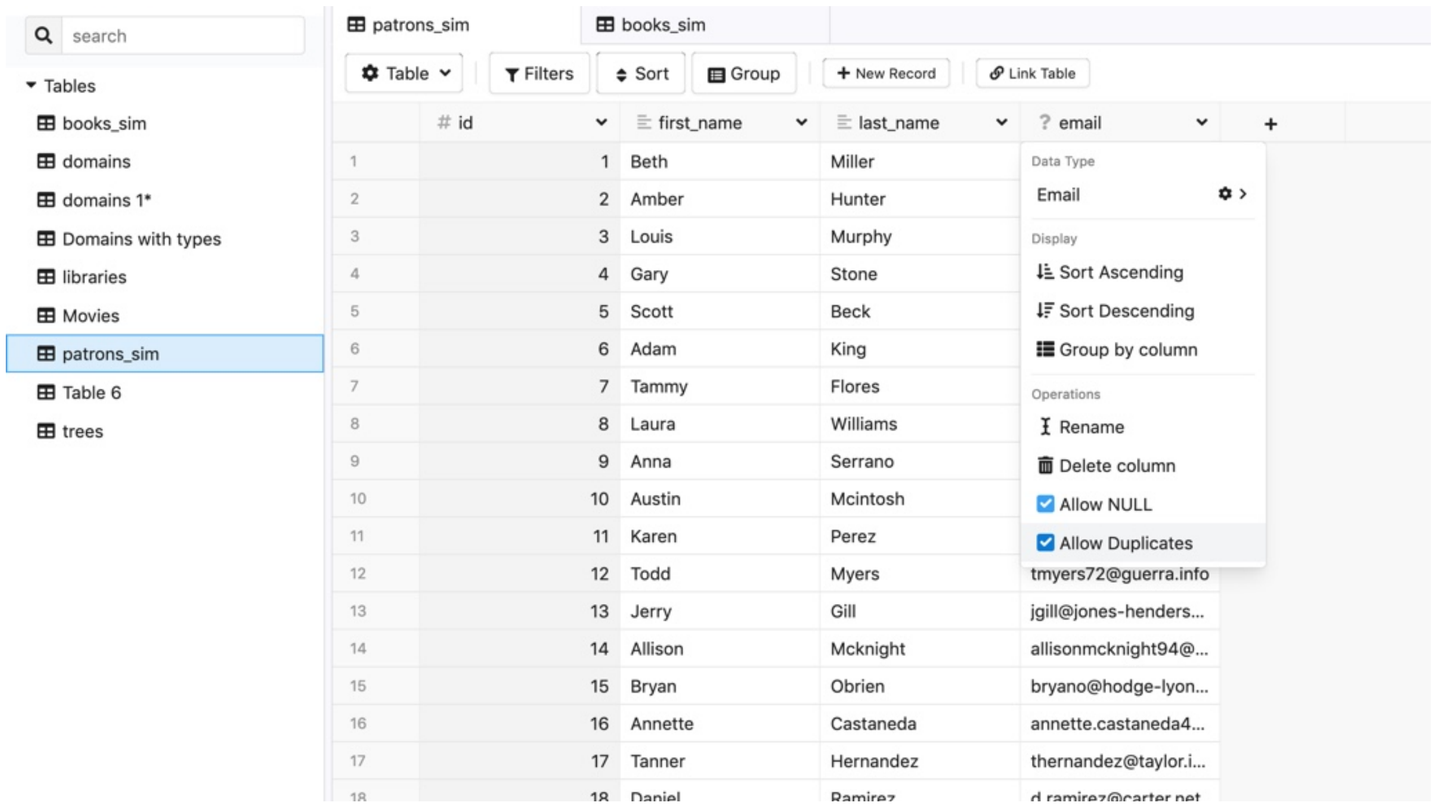
Team A

Priority

1

Action

2. Table Creation



6

What's happening?

The user sets unique constraint on Patron emaill

Design intentions

- Demonstrate the power of constraints (structured data)
- Demonstrate how to ensure deduplicated data

Design work needed

- Consider how to explain constraints better
- Review placement of constraint settings in Table view

Engineering work needed

Implement design work, if any

This would also be a good place to look at the open design tickets to redesign the column/data types menu, since it will be featured here.

We may want to consider an "Inspector" sidebar pattern.

Assigned to

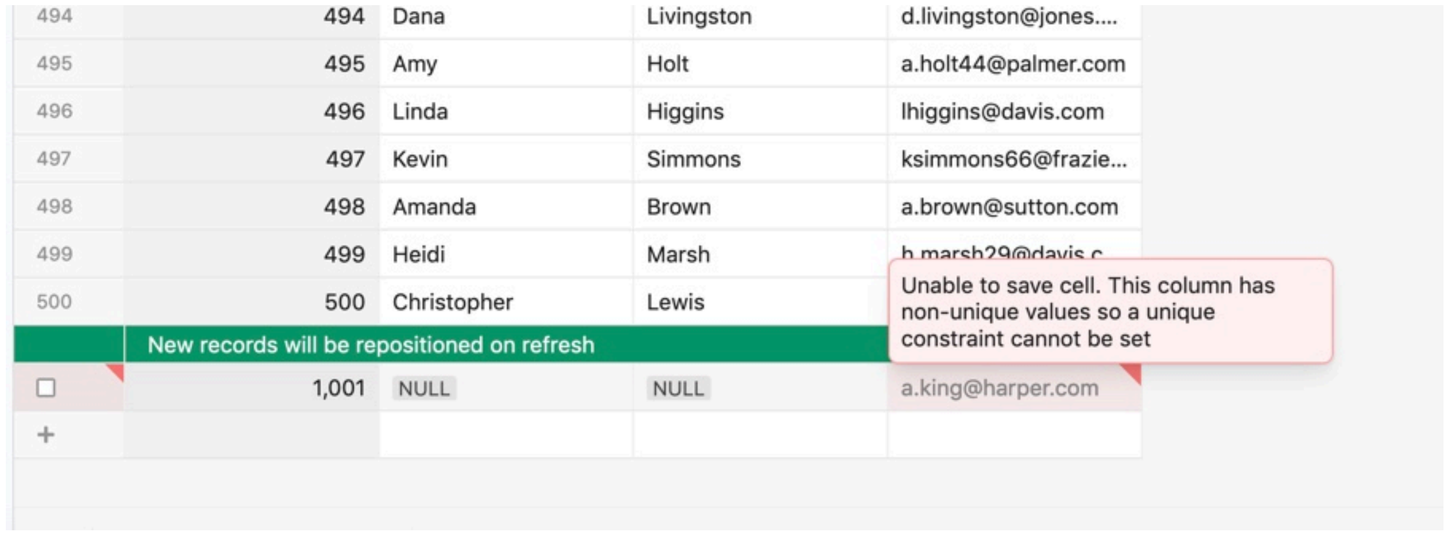
Team A

Priority

2

Action

3. Constraint Setting



7

What's happening?

User tries to enter duplicate patron

Design intentions

Show off data validation

Design work needed

Ensure error design looks good and works for non-technical users

Engineering work needed

Ensure error message and design look good

Assigned to

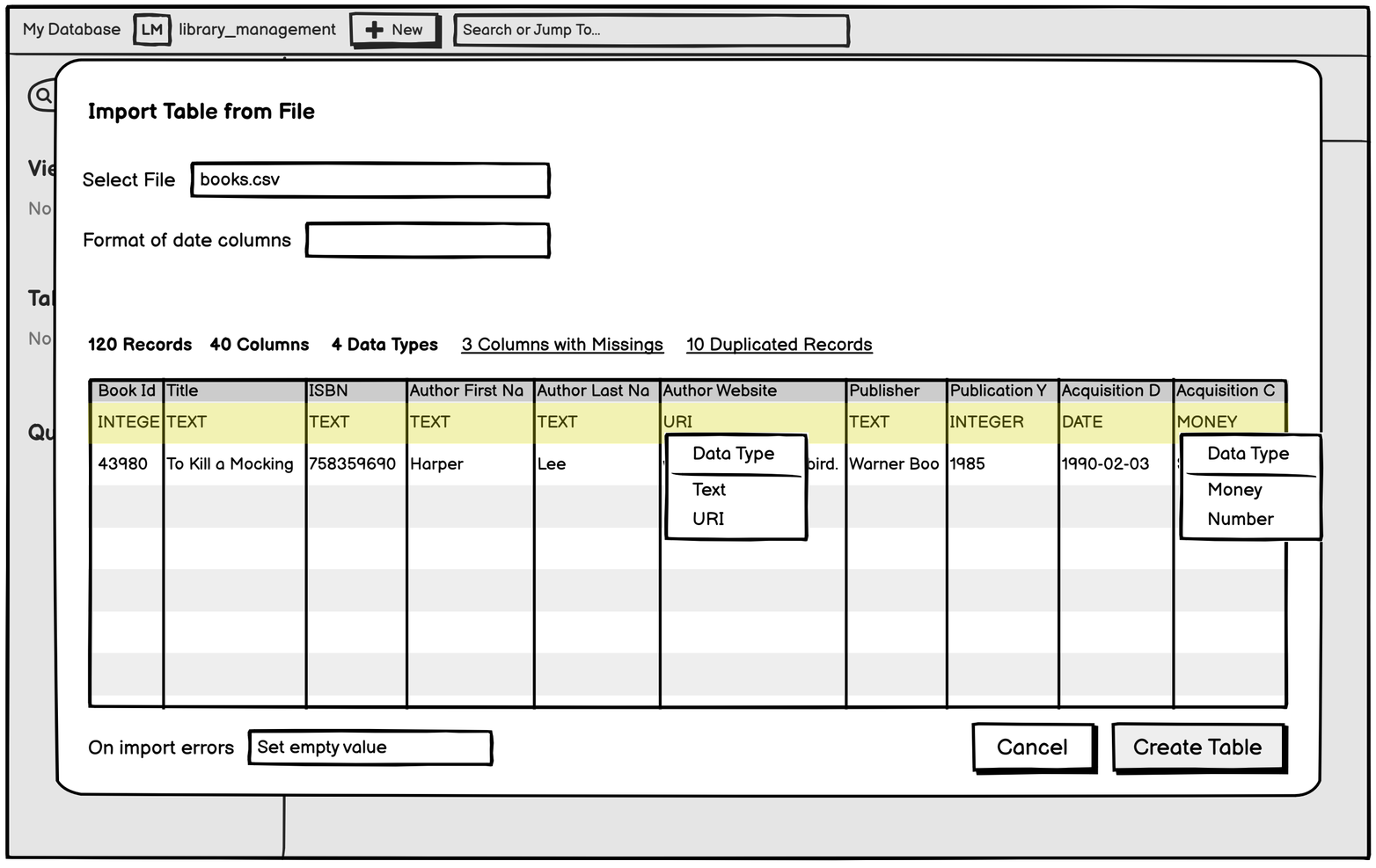
Team A

Priority

2

Action

3. Constraint Setting



8

What's happening?

User imports new spreadsheet - Books

Design intentions

Show more complicated import with more data types

Design work needed

See Storyboard #4

Engineering work needed

See Storyboard #4

Assigned to

Team A

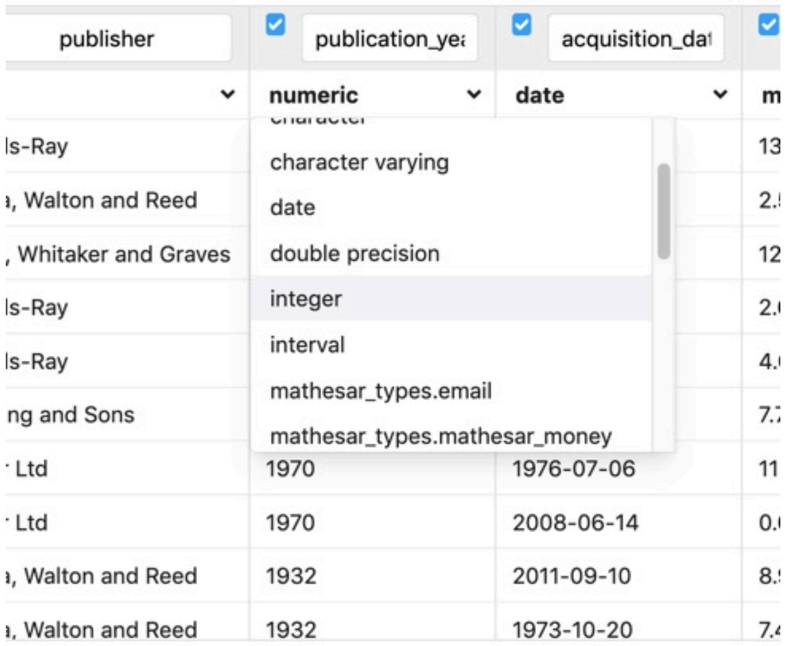
Priority

1

Action

2. Table Creation

9



What's happening?

User changes data type of Publication Year during import from NUMERIC to INTEGER

Design intentions

Show ease of changing data structure during import

Design work needed

Ensure design work in Storyboard #4 covers this

Engineering work needed

Should be covered by Storyboard #4

Assigned to

Team A

Priority

1

Action

2. Table Creation

10

The design pictured uses a different field.

What's happening?

User drops Book ID field from the columns to be saved

Design intentions

Show how easy it is to change the structure of the data during import

Design work needed

Ensure design work in Storyboard #4 covers this

Engineering work needed

Should be covered by Storyboard #4

Assigned to

Team A

Priority

1

Action

2. Table Creation

books_sim

Table | Filters | Sort | Group | New Record | Link Table

	id	title	isbn	author_first_n...	author_last_n...	author_website	publisher	publication_y...	acquisition_d...	acquisition_pr...
1	1	Begin Act West One...	1-78132-991-5	Kelly	Stephenson	https://stephenson....	Daniels-Ray	1,901	1973-10-10 AD	13.81
2	2	Film Party Suggest ...	0-520-35216-5	Jeffrey	Gutierrez	https://gutierrez.com	Garcia, Walton and ...	1,981	1985-12-18 AD	2.58
3	3	Might Media Whom ...	0-653-41523-0	Joseph	Jackson	https://josephjackso...	Wood, Whitaker and...	1,940	1960-11-27 AD	12.38
4	4	Think Anyone Along...	1-5291-1308-3	Kimberly	Williams	NULL	Daniels-Ray	1,921	1983-09-11 AD	2.63
5	5	Think Anyone Along...	1-5291-1308-3	Kimberly	Williams	NULL	Daniels-Ray	1,921	2006-05-20 AD	4.03
6	6	One Heart Oil Half T...	0-564-15589-6	Theodore	Ramos	https://ramos.com	Manning and Sons	1,944	1944-11-20 AD	7.75
7	7	Start Sign East Ope...	1-936802-33-3	Amanda	Vega	https://amandavega...	Porter Ltd	1,970	1976-07-06 AD	11.61
8	8	Start Sign East Ope...	1-936802-33-3	Amanda	Vega	https://amandavega...	Porter Ltd	1,970	2008-06-14 AD	0.09
9	9	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2011-09-10 AD	8.94
10	10	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1973-10-20 AD	7.48
11	11	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2022-01-18 AD	3.87
12	12	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1997-06-29 AD	12.17
13	13	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2001-12-16 AD	8.79
14	14	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1984-06-20 AD	0.99
15	15	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2007-11-28 AD	11.31
16	16	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1972-12-01 AD	10.95
17	17	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2021-11-21 AD	8.62
18	18	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2015-05-10 AD	9.83
19	19	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2008-07-30 AD	8.85
20	20	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2015-05-30 AD	2.4

11

What's happening?

User is redirected to the Books table after successful import

Design intentions

To reinforce the main Mathesar working interface and show other parts of it.

Design work needed

See Storyboard #5

Engineering work needed

See Storyboard #5

Assigned to

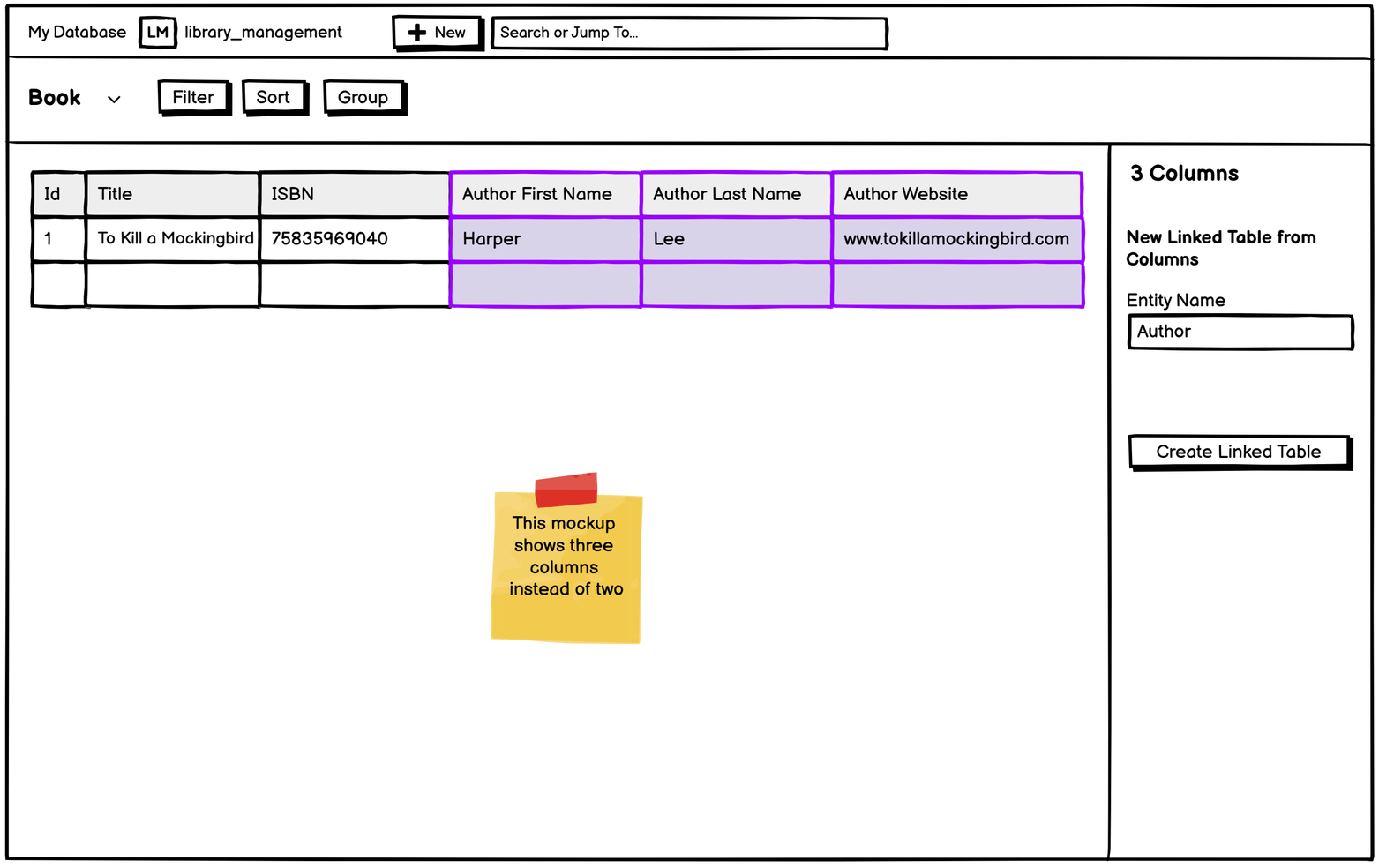
Team A

Priority

1

Action

2. Table Creation



12

What's happening?

User extracts Authors table using first name and last name columns

Design intentions

- Introduce the concept of relationships (Links)
- Introduce the concept of data modeling
- Introduce the UI of data modeiing

Design work needed

The entire flow, including supporting features like how to access links once they are created.

Engineering work needed

API and frontend work.

DB work is already done.

Assigned to

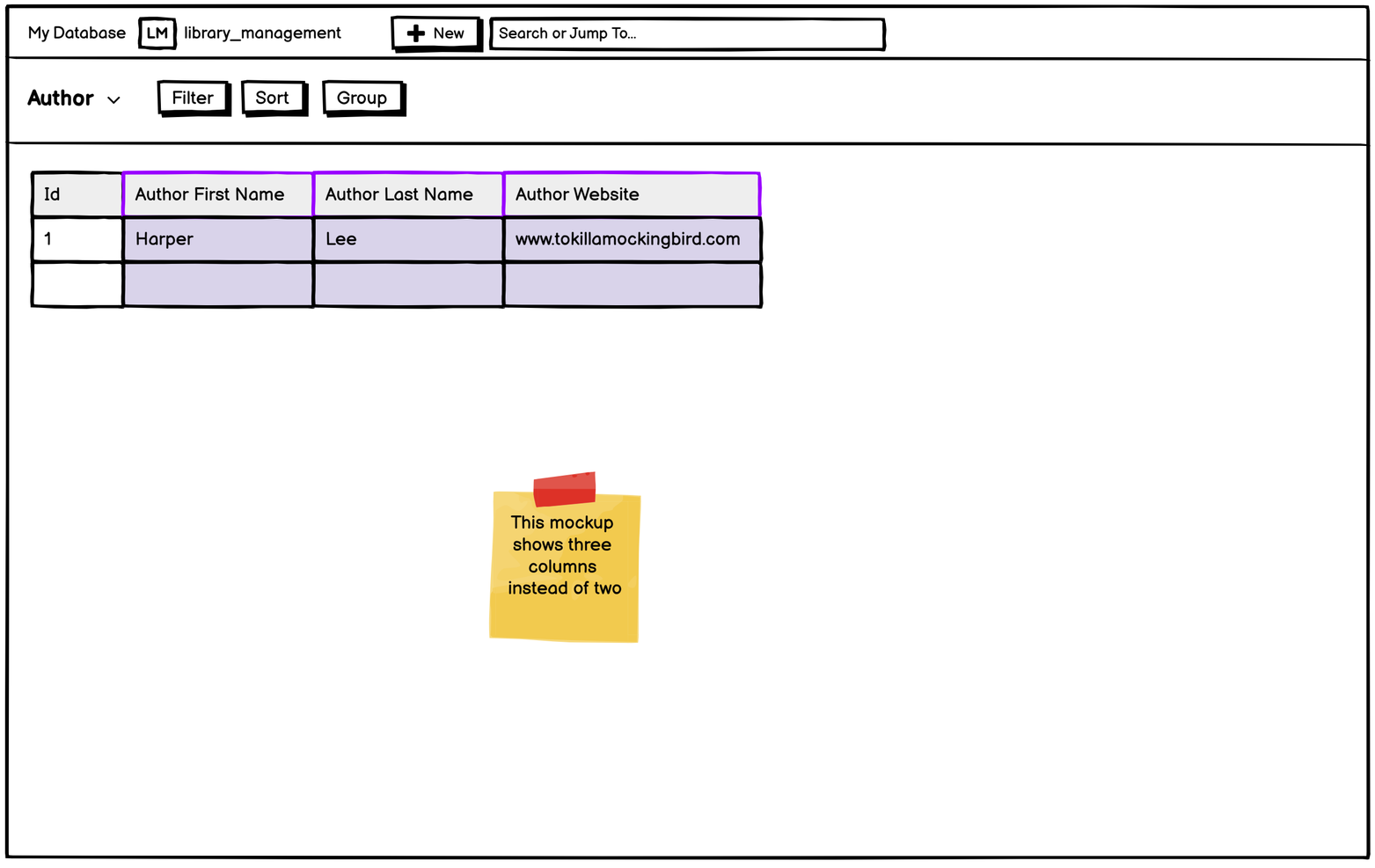
Team A
Brent

Priority

1

Action

4. Data Modeling



13

What's happening?

User is directed to the new Authors table

Design intentions

- Explain the concept of relationships further (user should understand that each record can now be linked to the main books table)
- Allow user to navigate to linked tables easily

Design work needed

- Should be covered by Storyboard #5 and #12
- We might need additional work for explaining that this was created as a result of a data modeling step

Engineering work needed

Mainly design implementation, should be minor.

Assigned to

Team A

Priority

1

Action

2. Table Creation

4. Data Modeling

books_sim

Table | Filters | Sort | Group | New Record | Link Table

	id	title	isbn	author_first_n...	author_last_n...	author_website	publisher	publication_y...	acquisition_d...	acquisition_pr...
1	1	Begin Act West One...	1-78132-991-5	Kelly	Stephenson	https://stephenson....	Daniels-Ray	1,901	1973-10-10 AD	13.81
2	2	Film Party Suggest ...	0-520-35216-5	Jeffrey	Gutierrez	https://gutierrez.com	Garcia, Walton and ...	1,981	1985-12-18 AD	2.58
3	3	Might Media Whom ...	0-653-41523-0	Joseph	Jackson	https://josephjackso...	Wood, Whitaker and...	1,940	1960-11-27 AD	12.38
4	4	Think Anyone Along...	1-5291-1308-3	Kimberly	Williams	NULL	Daniels-Ray	1,921	1983-09-11 AD	2.63
5	5	Think Anyone Along...	1-5291-1308-3	Kimberly	Williams	NULL	Daniels-Ray	1,921	2006-05-20 AD	4.03
6	6	One Heart Oil Half T...	0-564-15589-6	Theodore	Ramos	https://ramos.com	Manning and Sons	1,944	1944-11-20 AD	7.75
7	7	Start Sign East Ope...	1-936802-33-3	Amanda	Vega	https://amandavega...	Porter Ltd	1,970	1976-07-06 AD	11.61
8	8	Start Sign East Ope...	1-936802-33-3	Amanda	Vega	https://amandavega...	Porter Ltd	1,970	2008-06-14 AD	0.09
9	9	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2011-09-10 AD	8.94
10	10	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1973-10-20 AD	7.48
11	11	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2022-01-18 AD	3.87
12	12	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1997-06-29 AD	12.17
13	13	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2001-12-16 AD	8.79
14	14	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1984-06-20 AD	0.99
15	15	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	2007-11-28 AD	11.31
16	16	Learn Thus Necessa...	0-7188-2166-1	Barbara	Rich	NULL	Garcia, Walton and ...	1,932	1972-12-01 AD	10.95
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19	19	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2008-07-30 AD	8.85
20	20	Learn Thus Necessa...	0-683-18476-8	Barbara	Rich	NULL	Garcia, Walton and ...	1,995	2015-05-30 AD	2.4

14

What's happening?

User navigates back to Books table

Design intentions

Show how easy it is to navigate linked tables

Design work needed

Should be covered by Storyboard #12

Engineering work needed

- Ensure FK implementation is working (to show Author FK)
- Otherwise, should be covered by Storyboard #12

Assigned to

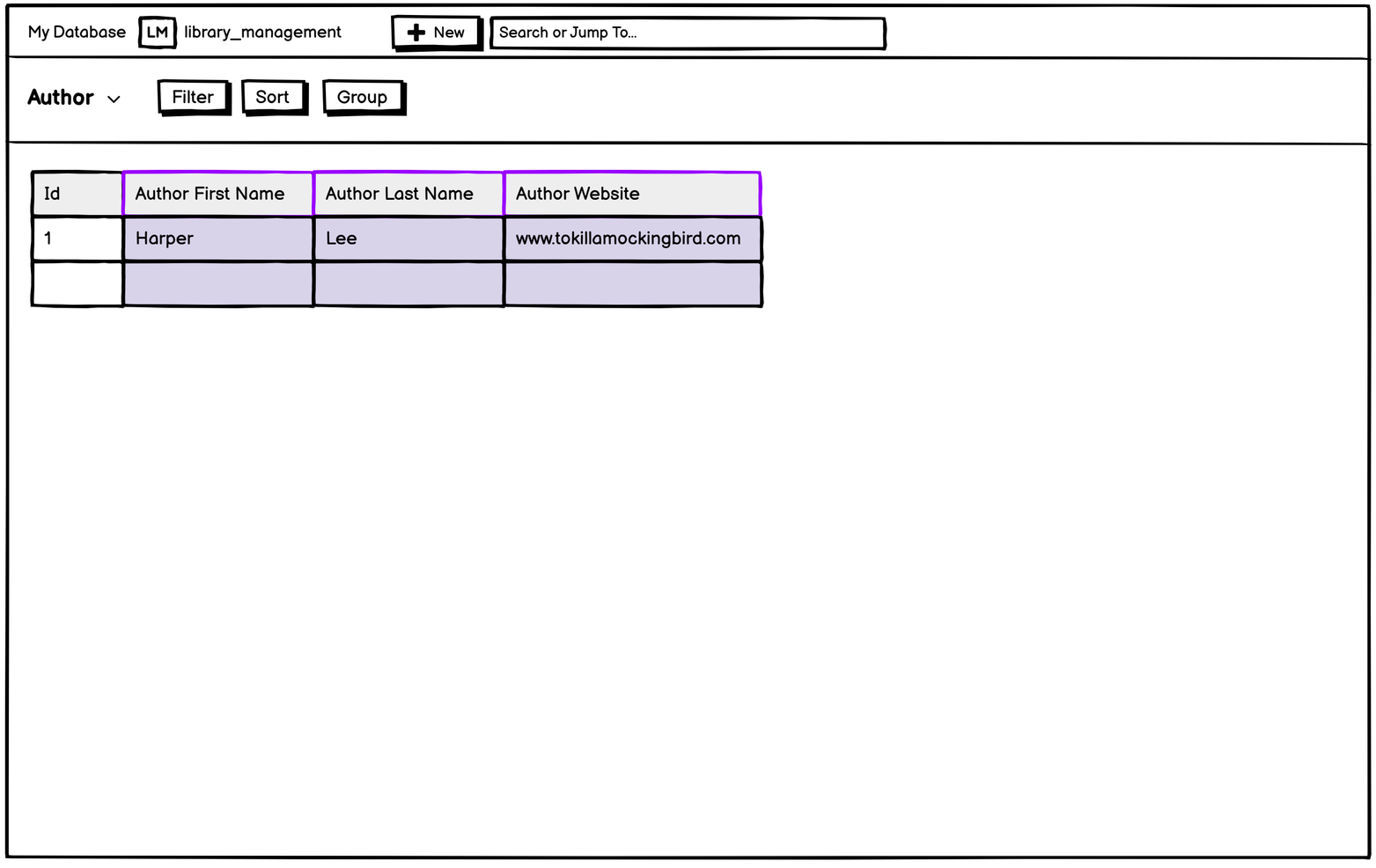
Team A

Priority

1

Action

4. Data Modeling



15

What's happening?

User realizes Author website is still in Books, moves the column to Author

Design intentions

- Show how easy it is to fix data modeling mistakes
- Show off moving columns from one table to another and reconciling data

Design work needed

This entire flow needs to be designed, but should build on Storyboard #12

Engineering work needed

API and frontend work.

DB work is done.

Assigned to

Team A
Brent

Priority

1

Action

4. Data Modeling

My Database | LM | library_management | + New | Search or Jump To...

Book | Filter | Sort | Group

Id	Title	ISBN	Author First Name	Author Last Name	Author Website
1	To Kill a Mockingbird	75835969040	Harper	Lee	www.tokillamockingbird.com

This mockup shows author instead of publisher

3 Columns

New Linked Table from Columns

Entity Name

Author

Create Linked Table

Assigned to

Team A
Brent

Priority

1

Action

4. Data Modeling

16

What's happening?

User extracts Publisher column to its own table

Design intentions

- Explain the concept of each table representing a type of entity
- Continue to demonstrate ease of data modeling
- Continue to explain relationships

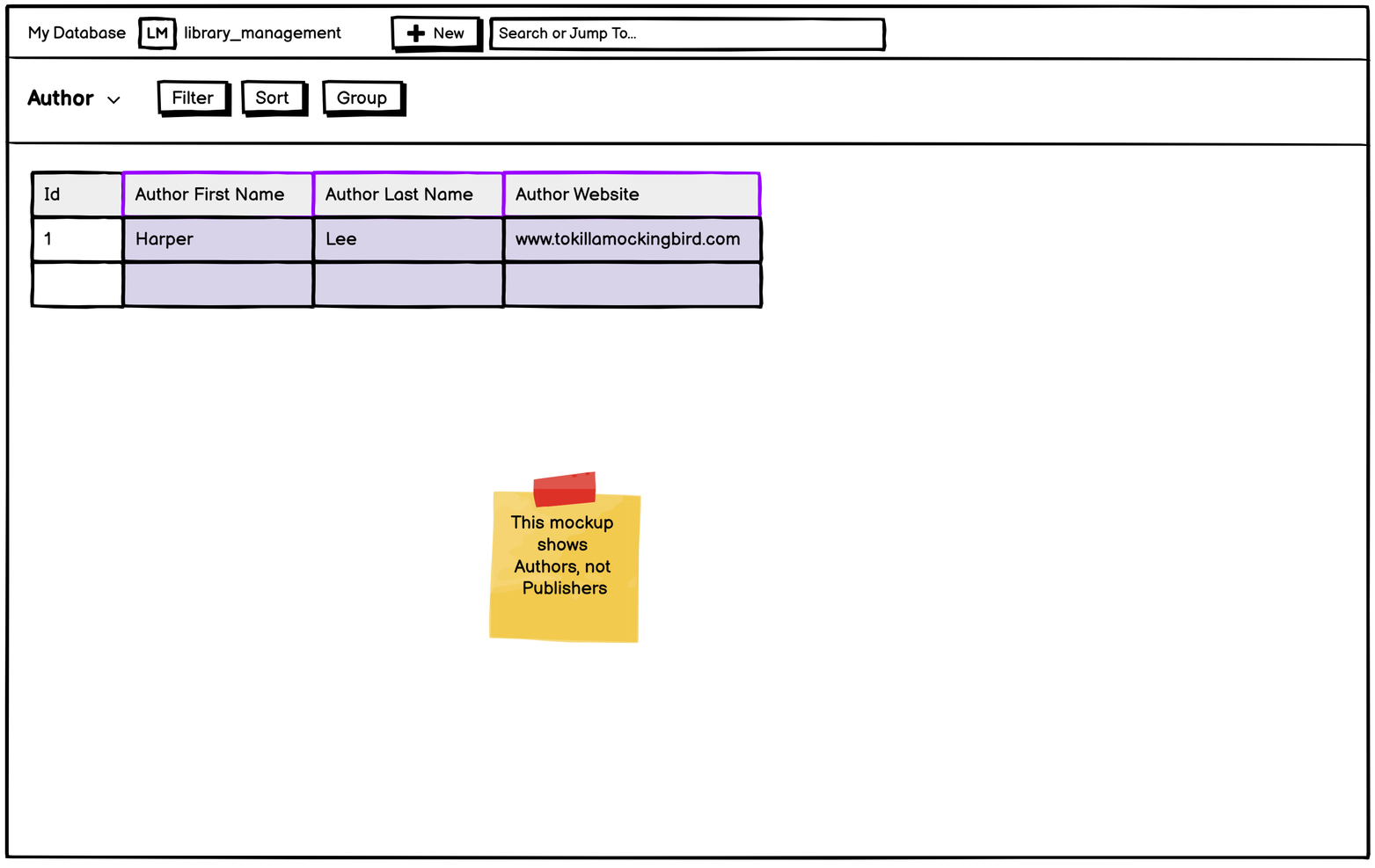
Design work needed

Should be covered by Storyboard #12

Engineering work needed

Should be covered by Storyboard #12

17



What's happening?

User is redirected to the Publishers table and then goes back to Books

Design intentions

Same as Storyboard #13-14

Design work needed

Same as Storyboard #13-14

Engineering work needed

Same as Storyboard #13-14

Assigned to

Team A

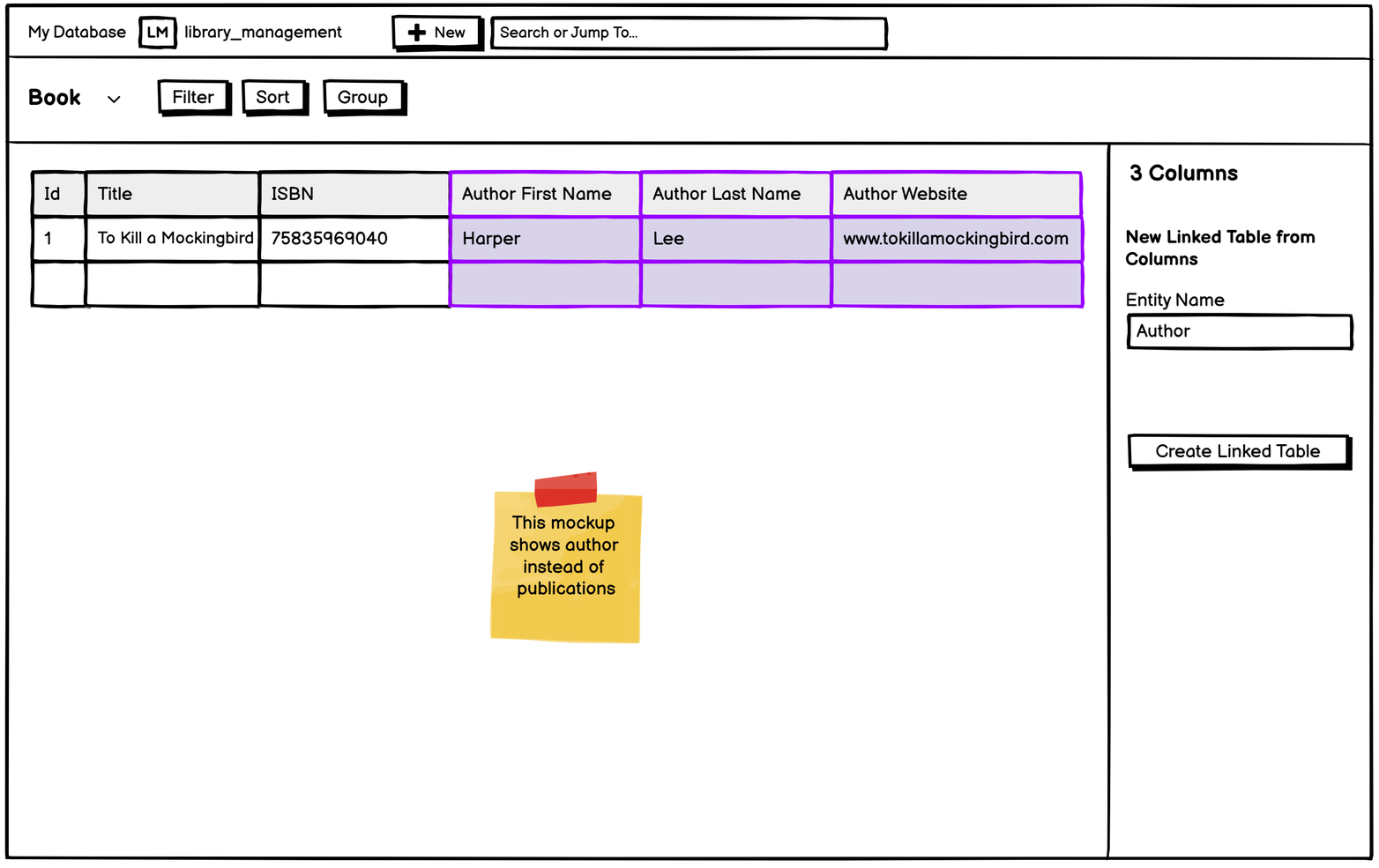
Priority

1

Action

2. Table Creation

4. Data Modeling



Assigned to

Team A
Brent

Priority

1

Action

4. Data Modeling

18

What's happening?

User extracts ISBN, Title, Author ID, Publisher ID, and Publication Year into a Publications table

Design intentions

Continue to demonstrate

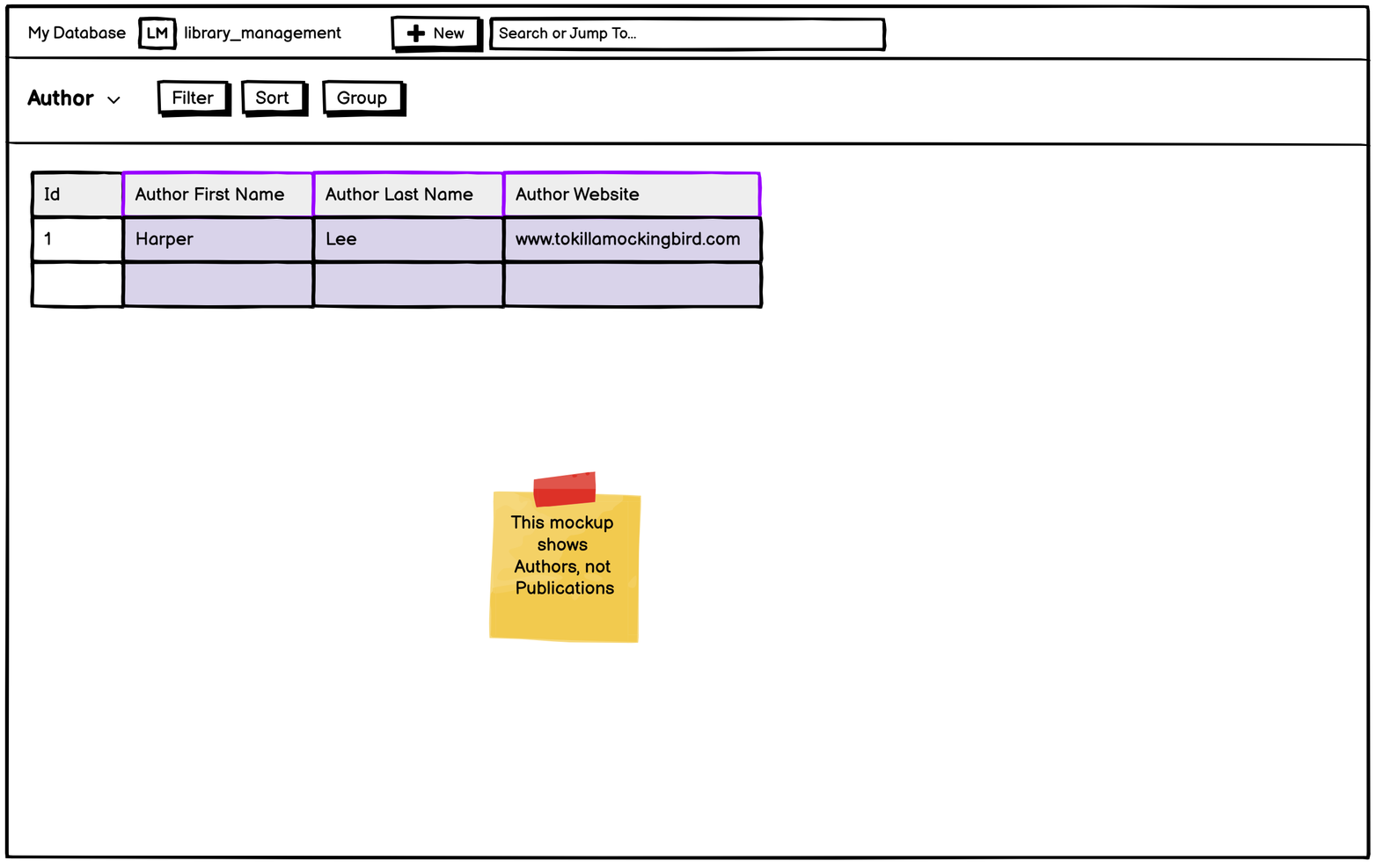
- the concept of each table representing a type of entity
- ease of data modeling
- relationships

Design work needed

Should be covered by Storyboard #12

Engineering work needed

Should be covered by Storyboard #12



19

What's happening?

User is redirected to the Publications table and then goes back to Books

Design intentions

Same as Storyboard #13-14

Design work needed

Same as Storyboard #13-14

Engineering work needed

Same as Storyboard #13-14

Assigned to

Team A

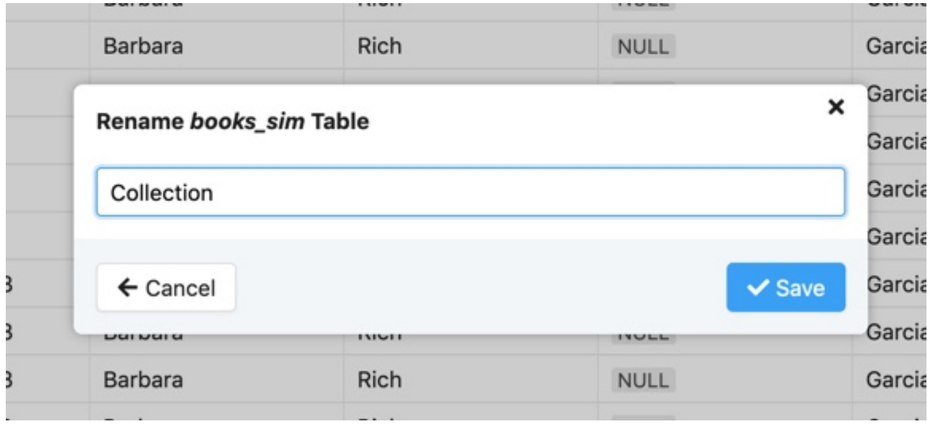
Priority

1

Action

2. Table Creation

4. Data Modeling



20

What's happening?

User renames Books to Collection

Design intentions

- Explain the concept of naming tables after the entity contained
- Show ease of renaming tables
- Show natural language in table names

Design work needed

Review workflow and design, make improvements

Engineering work needed

Implement design improvements as needed, frontend only.

Assigned to

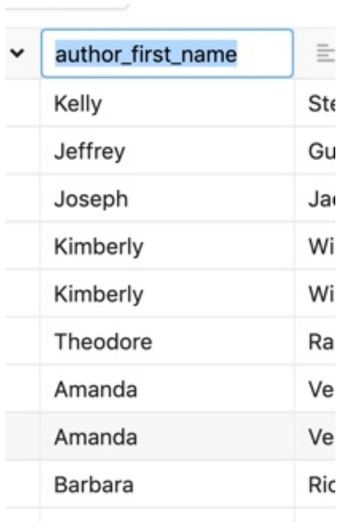
Team A

Priority

1

Action

5. Table Actions



21

What's happening?

User renames columns using Title Case as needed

Design intentions

- Show ease of renaming columns
- Show that column names can use natural language

Design work needed

Review workflow and design, make improvements

Engineering work needed

Implement design improvements as needed, frontend only.

Assigned to

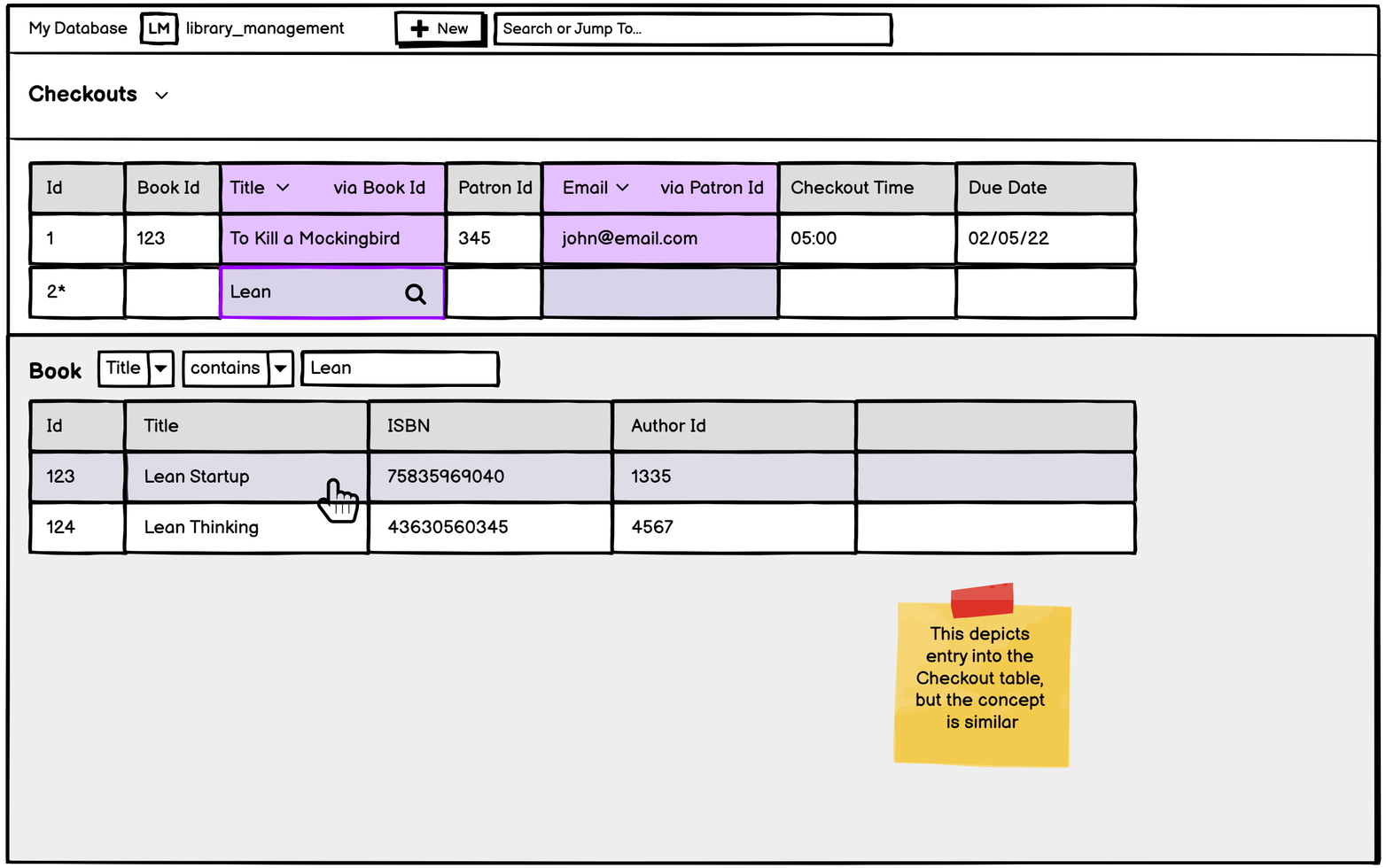
Team A

Priority

1

Action

5. Table Actions



22

What's happening?

User records new inventory item

Design intentions

- Demonstrate ease of data entry
- Demonstrate ease of relationship lookup during data entry

Design work needed

The entire flow, including how to view and find related items through many-to-many fields

Engineering work needed

DB, API, frontend work

Having virtual columns and using filtering is one way to solve the problem of lookup for Many-to-Many fields, but it's an early design concept at this stage. The actual design will need to be worked out during the cycle.

Assigned to

Team B

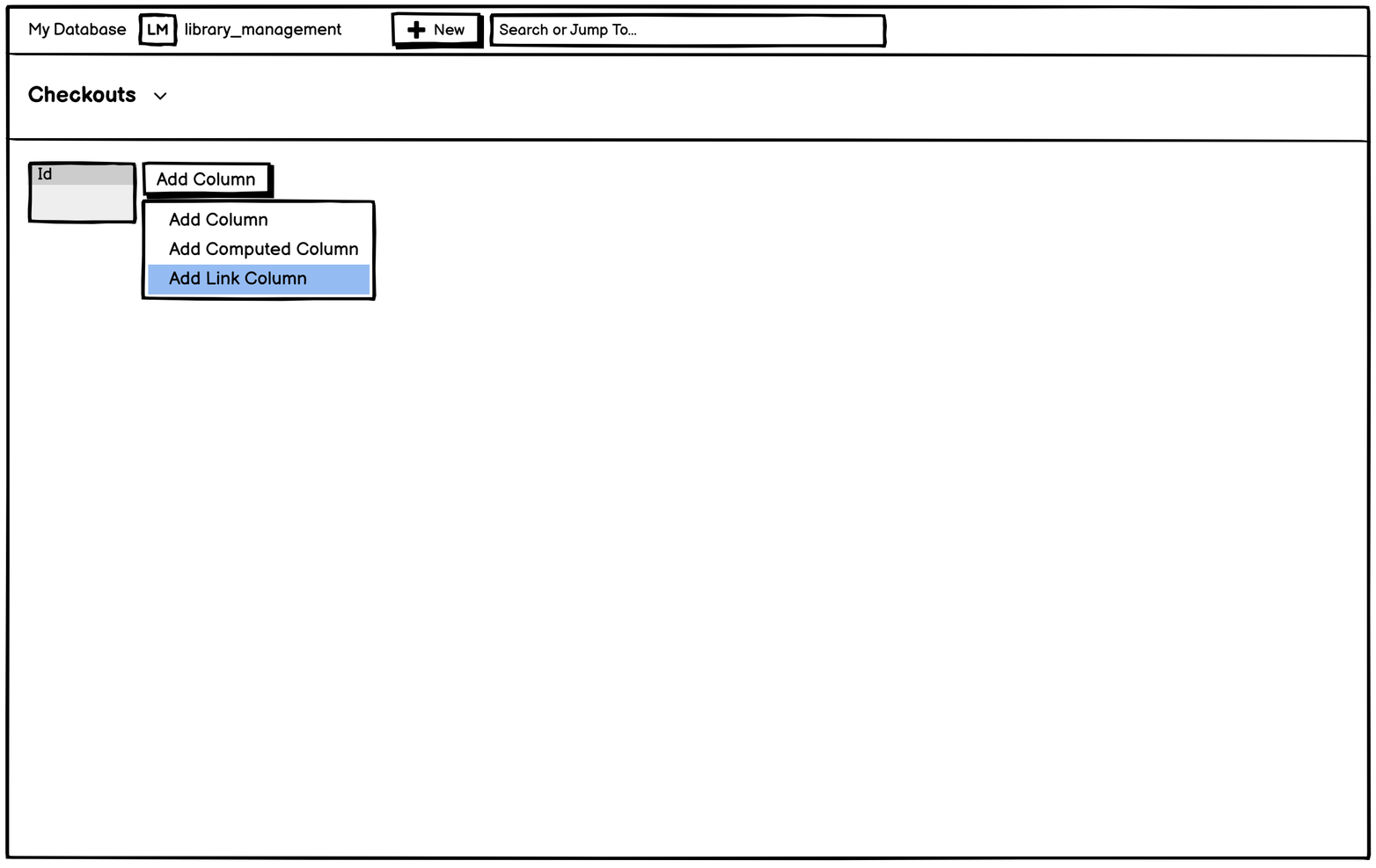
Brent

Priority

1

Action

6. Record Editing



23

What's happening?

User creates new Checkouts table

Design intentions

Demonstrate table creation from scratch (not import)

Design work needed

Review existing flow and make UX improvements if needed

Engineering work needed

Implement UX improvements if needed

Assigned to

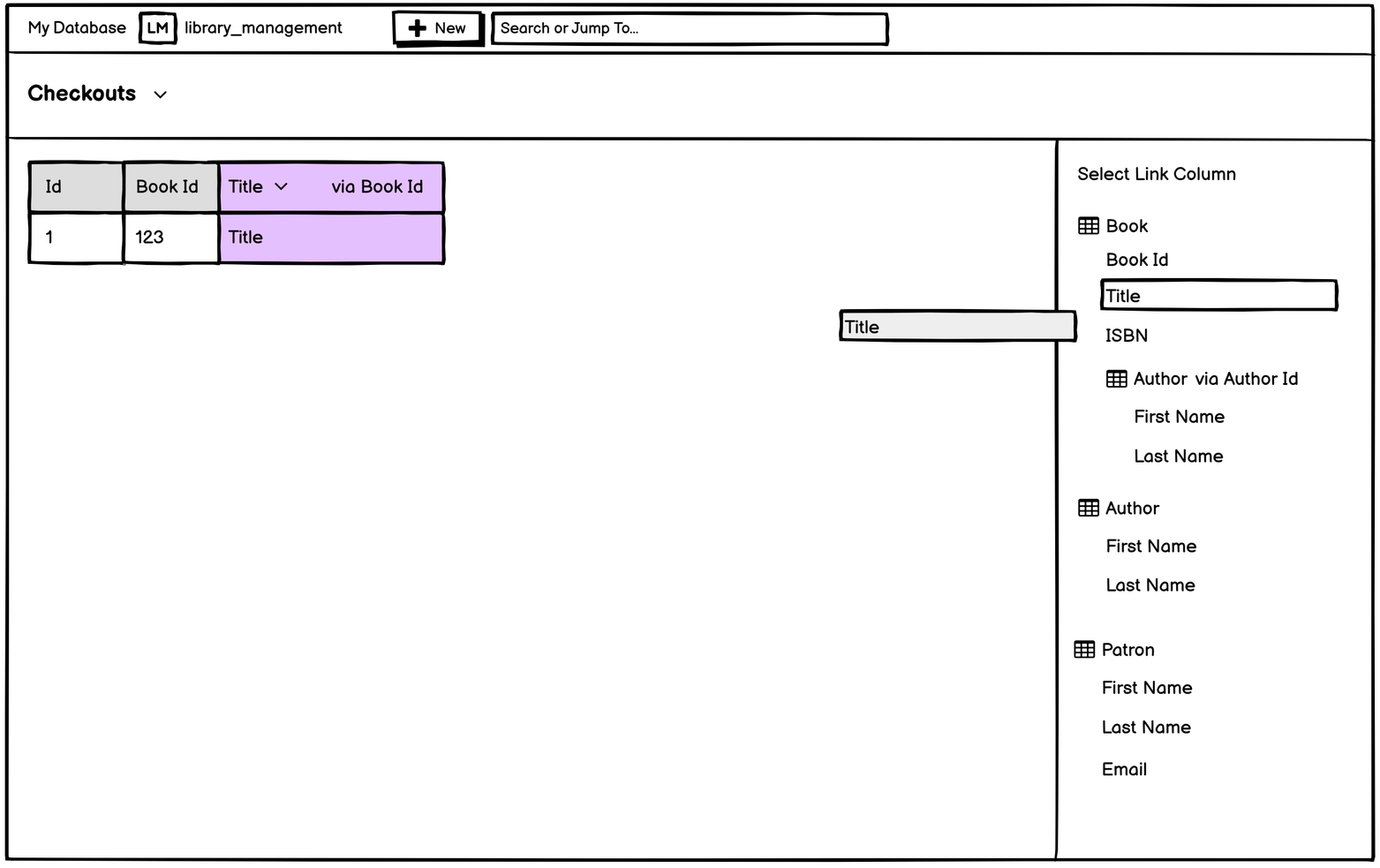
Team A

Priority

1

Action

2. Table Creation



24

What's happening?

User adds columns to Checkouts table

- Collection (FK to Collection)
- Patron (FK to Patron)
- Checkout time (Datetime)
- Due date (Date)

Design intentions

- Show how to build up a table from scratch
- Show how to build relationships to existing tables
- Show how relationships are represented once they are set up

Design work needed

Review entire flow and come up with new designs as needed. Use some of the relationship concepts we came up with for the query builder. Potentially use virtual columns.

Engineering work needed

API and frontend work as needed to implement the new flow.

Assigned to

Team A

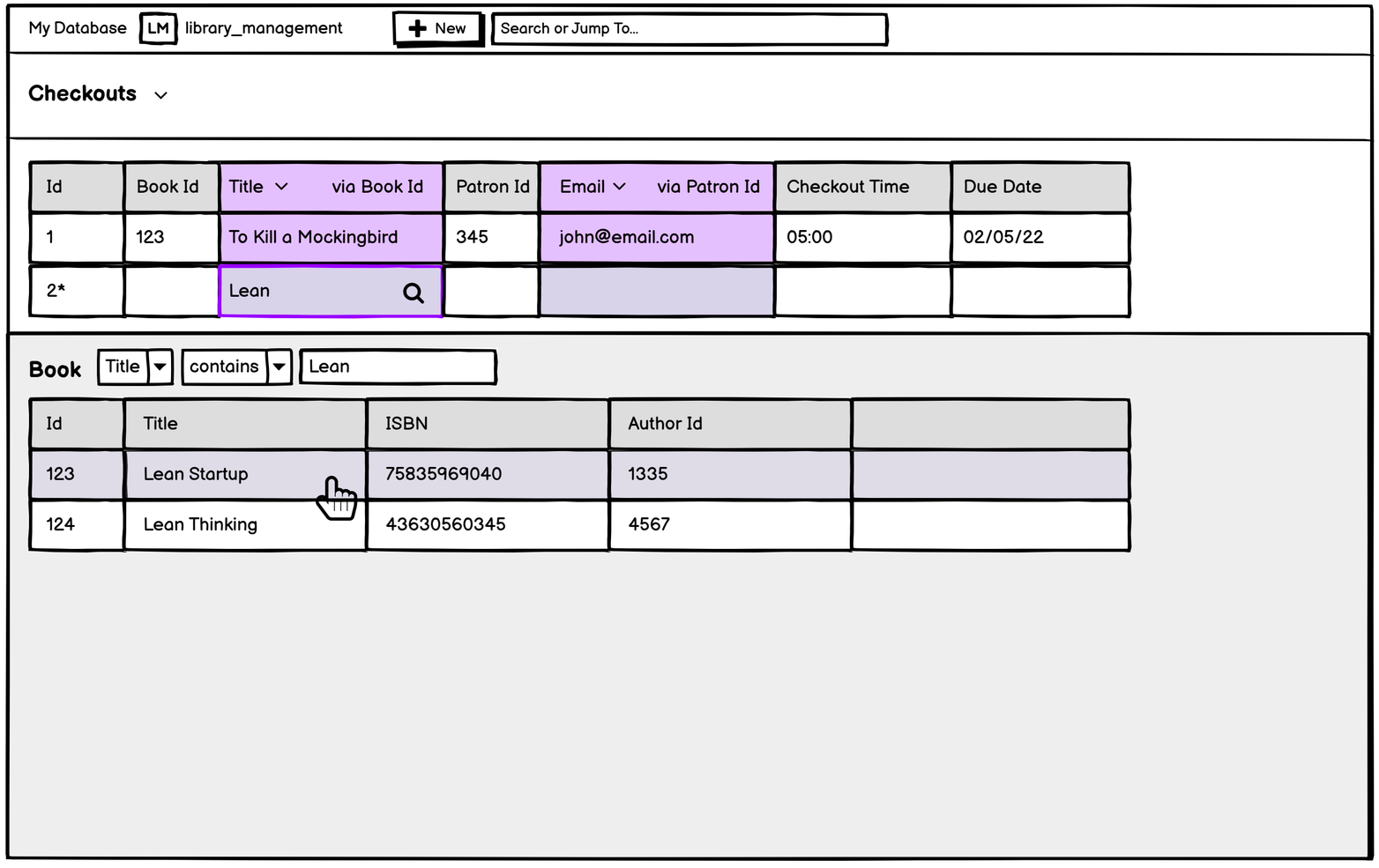
Priority

1

Action

2. Table Creation

3. Constraint Setting



25

What's happening?

User records a checkout

Design intentions

- Show how quick and easy data entry is for frequent operations
- Show how easy it is to find related records

Design work needed

Should be covered by Storyboard #22

Engineering work needed

Should be covered by Storyboard #22

Assigned to

Team B
Brent

Priority

1

Action

6. Record Editing

My Database LM library_management + New Search or Jump To...

Checkouts

Id	Book Id	Title via Book Id	Patron Id	Email via Patron Id	Checkout Time	Due Date
1	123	Title	345	john@email.com	05:00	02/05/22

26

What's happening?

User sets dynamic defaults to automatically calculate checkout date and due date

Design intentions

Show how to configure the product to simplify data entry further

Design work needed

Entire flow

Engineering work needed

DB, API, frontend work

Assigned to

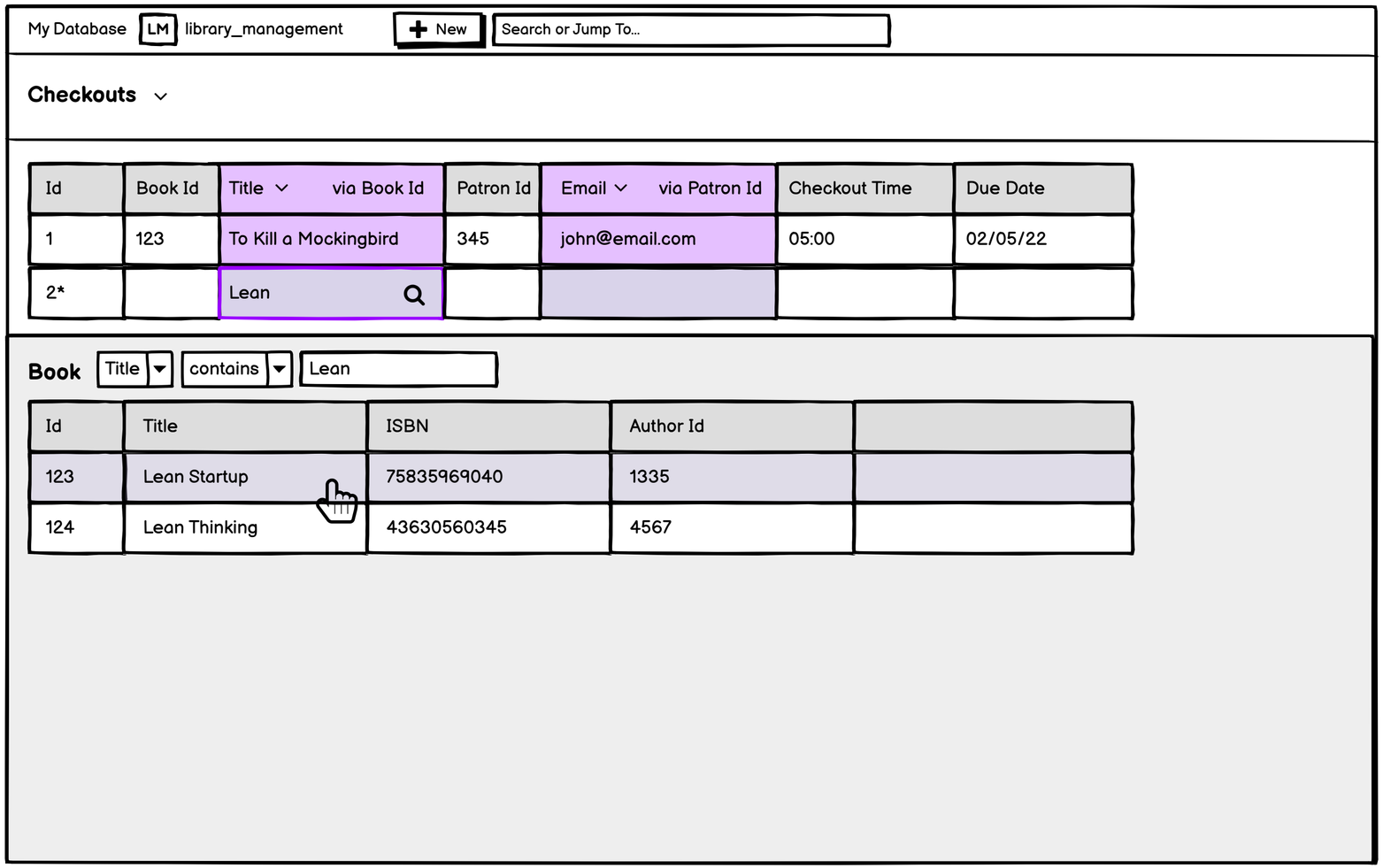
Team B
Brent

Priority

3

Action

7. Default Values



27

What's happening?

User records a checkout with new defaults

Design intentions

Show how data entry is simplified further with dynamic defaults

Design work needed

The whole flow, although Storyboard #26 should cover most of it.

Engineering work needed

Storyboard #26 should cover most of it, some additional frontend work may be needed here for the UX of entering records with defaults.

Assigned to

Team B
Brent

Priority

3

Action

7. Default Values
6. Record Editing

To Be Designed

28

What's happening?

User records a book return

Design intentions

- Show how easy it is to find and update a specific existing record.
- Show off UX for locating records that involve FK and many-to-many relationships

Design work needed

Update existing FK flow as needed, new flow for many-to-many relationships

May be covered by Storyboard #22

Engineering work needed

Will be probably covered by Storyboard #22

Assigned to

Team B
Brent

Priority

1

Action

6. Record Editing

To Be Designed

29

What's happening?

User groups checkout data by month and clicks something like "view summary"

Design intentions

- Show how we can start looking at data through the table interface and smoothly go into reporting
- Introduce the concept of reporting

Design work needed

- Review UX for grouping in tables
- "View summary" UI and UX

Engineering work needed

Frontend work for going from table to data explorer

Assigned to

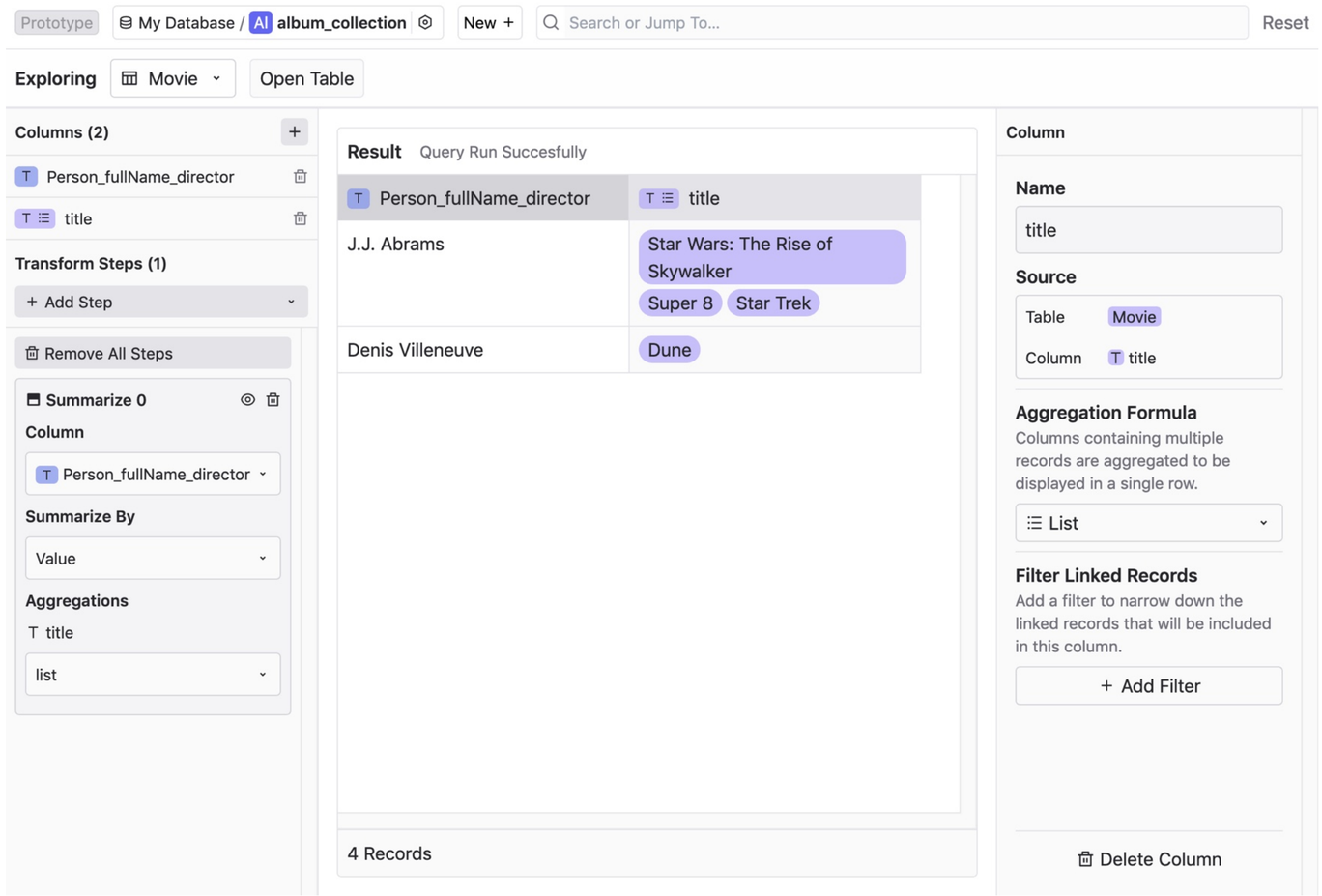
Team B
Brent

Priority

1

Action

8. Data Explorer
5. Table Actions



30

What's happening?

User is taken to data explorer with a summary view

Design intentions

- Introduce Data Explorer
- Introduce Queries
- Continue introduction to the concept of reporting
- Introduce the Summarization step in the Data Explorer

Design work needed

Review flow, make UX improvements as needed.
Should be minimal since the Data Explorer is already designed.

Engineering work needed

Data Explorer DB, API, frontend work

Assigned to

Team B
Brent

Priority

1

Action

8. Data Explorer

To Be Designed

31

What's happening?

User clicks "view as bar chart" button and sees a visualization of the chart

Design intentions

Show how easy it is to get a quick visualization of data

Design work needed

Flow for viewing visualization in the Data Explorer

Engineering work needed

- Frontend work for the chart
- Logic for when to show visualization option for bar chart

Assigned to

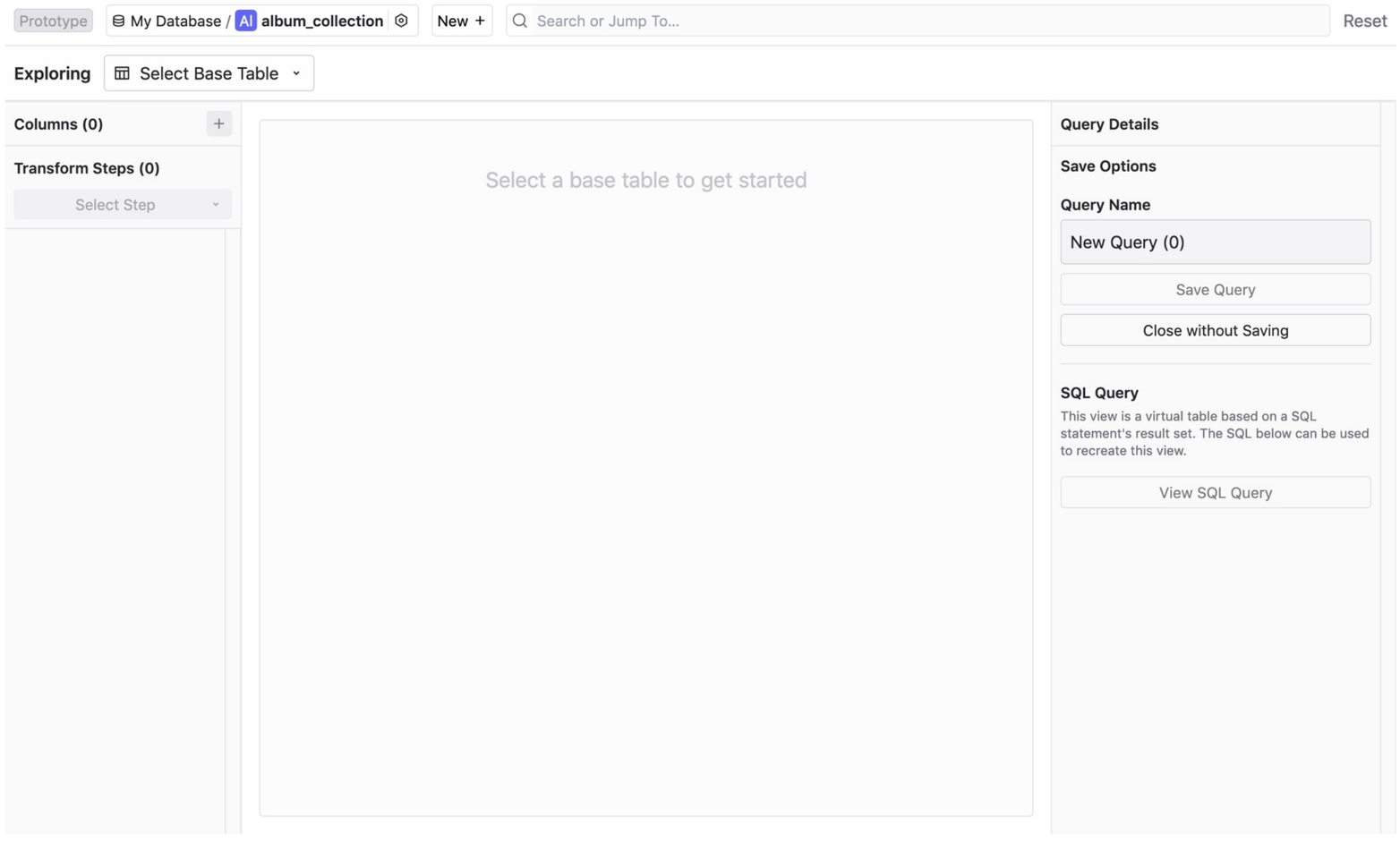
Team B

Priority

3

Action

9. Data Visualization



32

What's happening?

User goes to data explorer to create a new query to track overdue books

Design intentions

Introduce location of data explorer

Design work needed

Finalize data explorer navigation

Engineering work needed

Frontend work to implement data explorer navigation

Assigned to

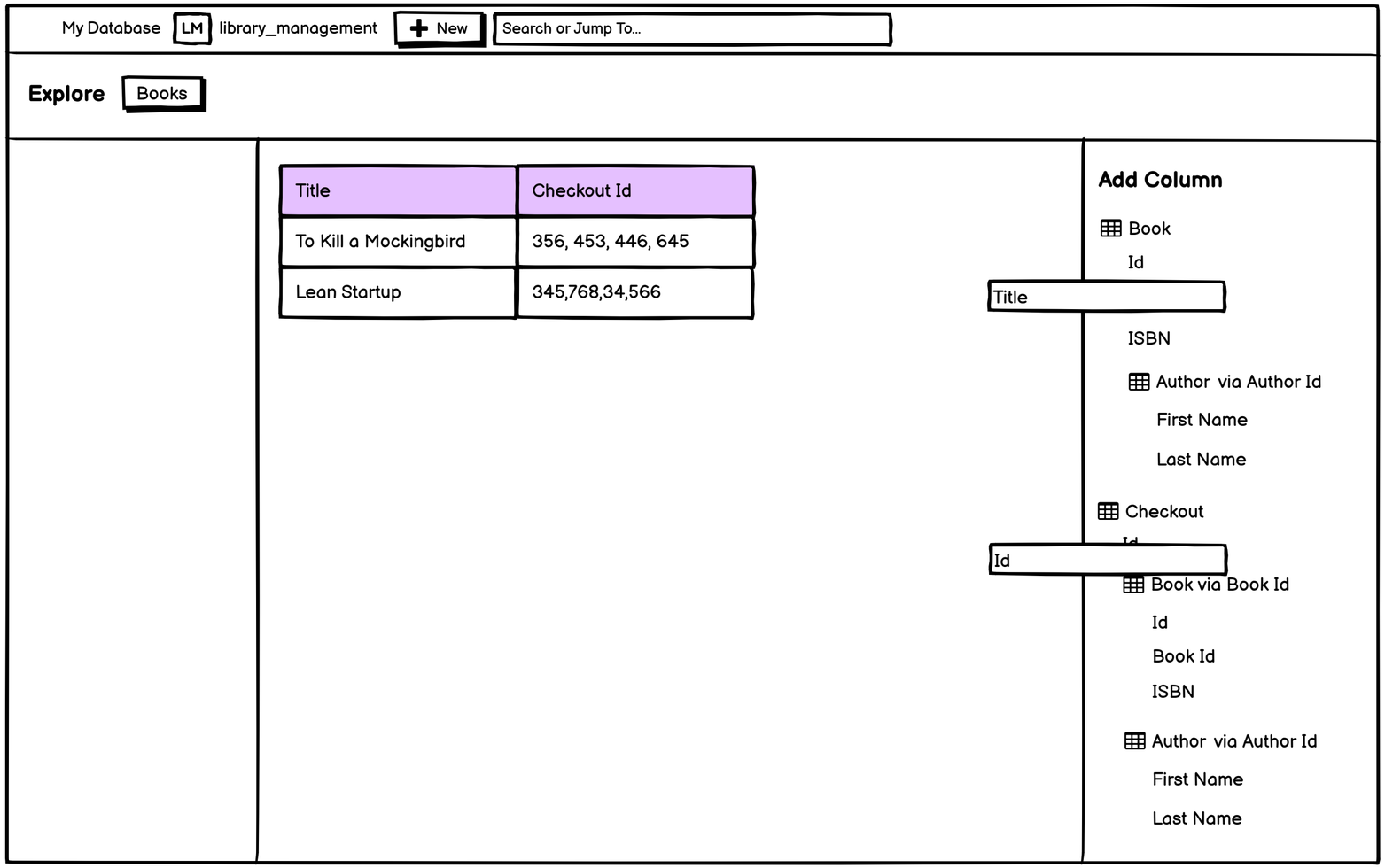
Team B
Brent

Priority

1

Action

8. Data Explorer



33

What's happening?

User creates overdue book report

Design intentions

- Introduce creating reports in data explorer from scratch
- Introduce the column drag and drop interface
- Introduce how we represent links

Design work needed

Review and update UX as needed

Engineering work needed

Data Explorer DB, API, frontend work

Assigned to

Team B
Brent

Priority

1

Action

8. Data Explorer

How to generate overdue book report
Base table Check outs
Filter where due date < TODAY()
Join in title from Publications via Collection items
Join in email from Patrons
Summarize over email, aggregate titles to list

34

To Be Designed

What's happening?

User saves View

Design intentions

Introduce the concept of saving a report for later use

Design work needed

Flow for saving a query as a view

Engineering work needed

Views DB, API, backend work

Assigned to

Team B
Brent

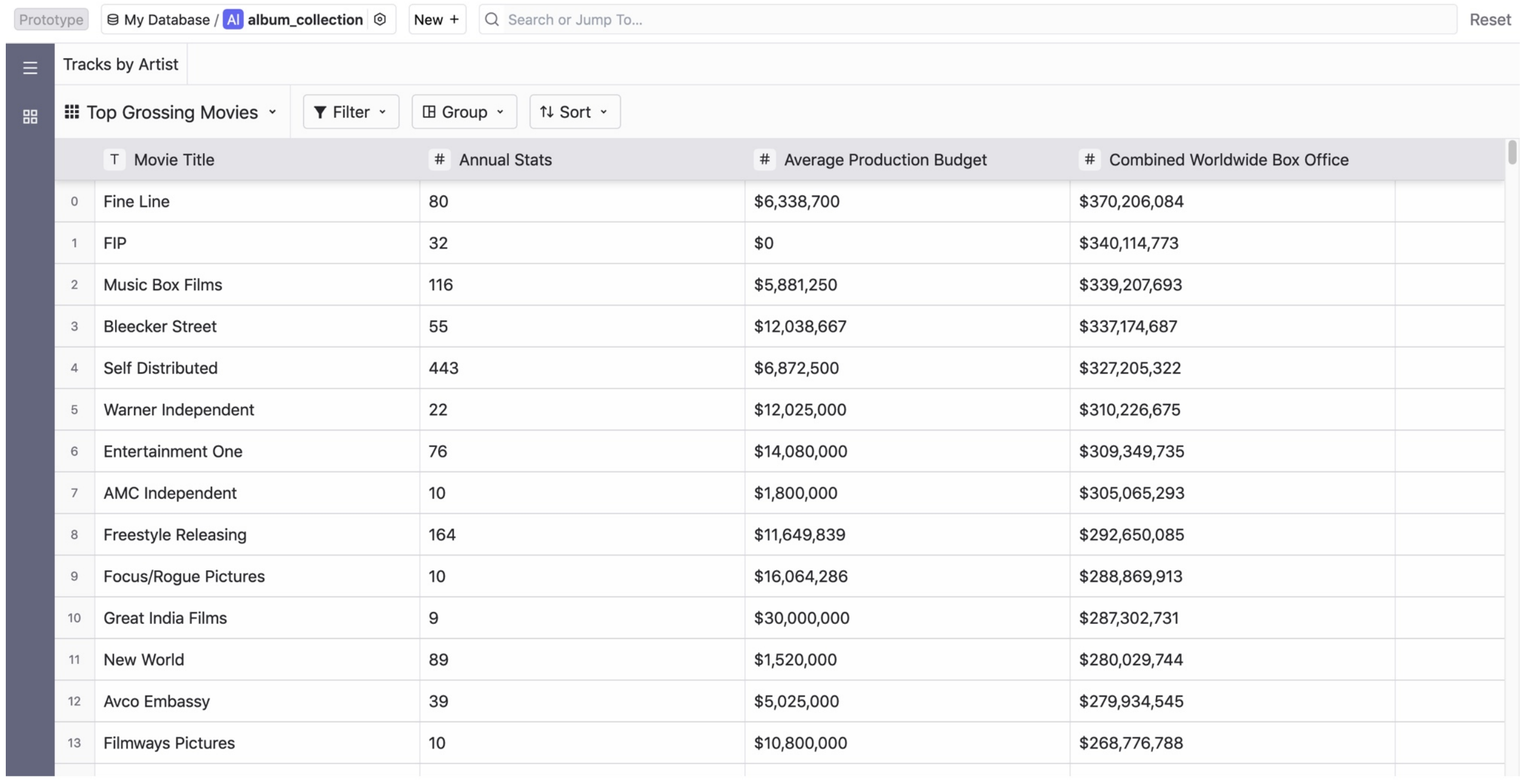
Priority

1

Action

8. Data Explorer

10. Views



	Movie Title	Annual Stats	Average Production Budget	Combined Worldwide Box Office
0	Fine Line	80	$6,338,700	$370,206,084
1	FIP	32	$0	$340,114,773
2	Music Box Films	116	$5,881,250	$339,207,693
3	Bleecker Street	55	$12,038,667	$337,174,687
4	Self Distributed	443	$6,872,500	$327,205,322
5	Warner Independent	22	$12,025,000	$310,226,675
6	Entertainment One	76	$14,080,000	$309,349,735
7	AMC Independent	10	$1,800,000	$305,065,293
8	Freestyle Releasing	164	$11,649,839	$292,650,085
9	Focus/Rogue Pictures	10	$16,064,286	$288,869,913
10	Great India Films	9	$30,000,000	$287,302,731
11	New World	89	$1,520,000	$280,029,744
12	Avco Embassy	39	$5,025,000	$279,934,545
13	Filmways Pictures	10	$10,800,000	$268,776,788

35

What's happening?

User is redirected to View

Design intentions

Introduce the Views interface

Design work needed

Revise and update UX as needed

Engineering work needed

DB, API, frontend work for displaying views

Assigned to

Team B

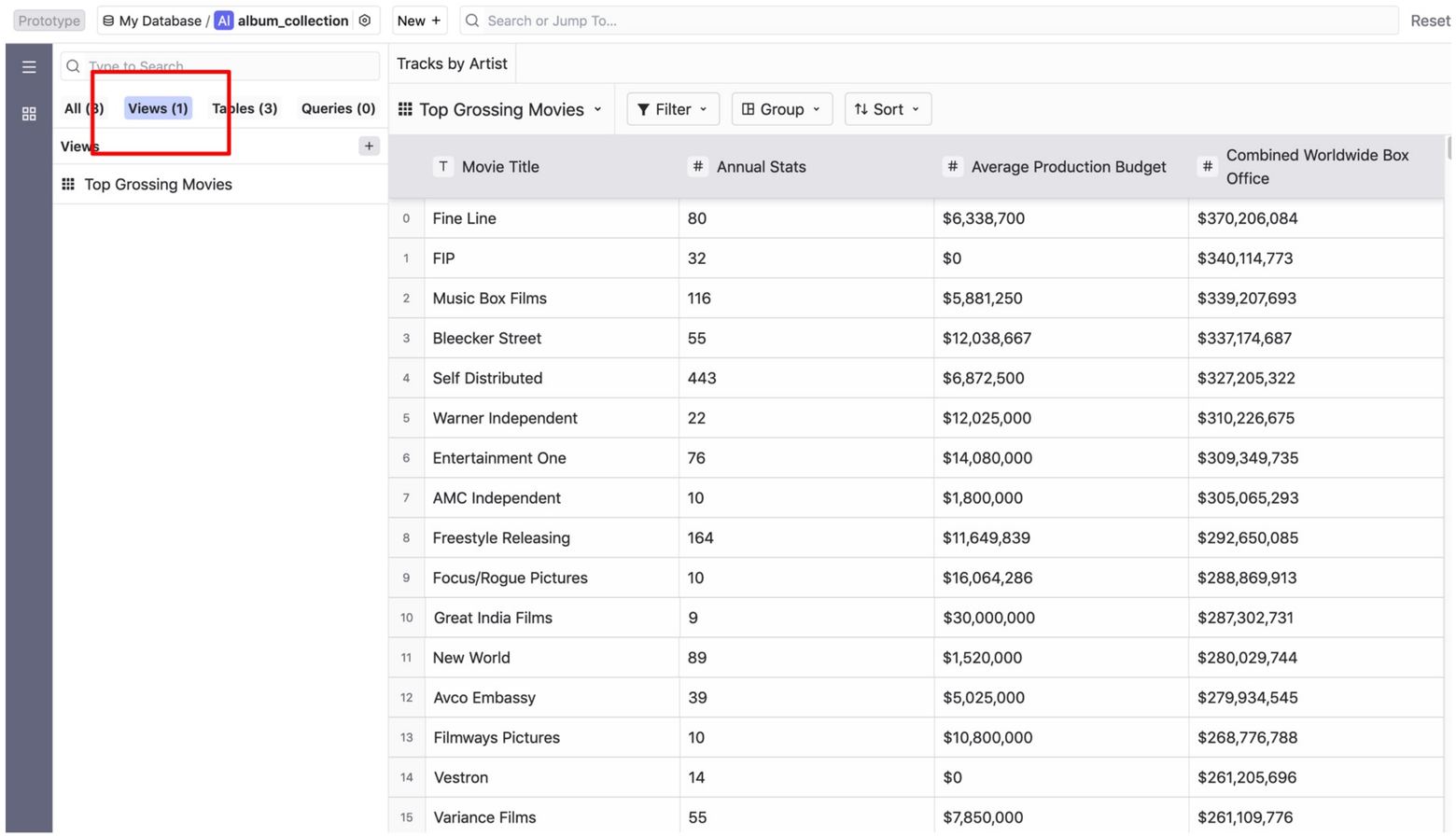
Brent

Priority

1

Action

10. Views



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12	Avco Embassy	39	$5,025,000	$279,934,545
13	Filmways Pictures	10	$10,800,000	$268,776,788
14	Vestron	14	$0	$261,205,696
15	Variance Films	55	$7,850,000	$261,109,776

36

What's happening?

User locates existing view through the interface

Design intentions

Introduce the location of Views in the Mathesar interface

Design work needed

Revise and update Views listing UX as needed

Engineering work needed

DB, API, frontend works for listing and finding Views

Assigned to

Team B

Priority

1

Action

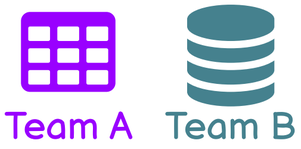
10. Views

Additional Work

Product work

- UI Styling
- Table Colors

Assigned to



To be done while working on the relevant features

Research/Groundwork for Demo

Branding
Marketing Copy
Website
Real demo data
Script for demo
Narrator for demo
Email collection mechanism

Assigned to

Workflow Notes

Sub-Team organization
Each team should meet ASAP and organize and prioritize their work

- Break the storyboard down into tasks
- Figure out dependencies (especially on other teams)
- Prioritize and order the tasks
- Make requests to other teams.

Core Team organization

- Continue checking in with the smallest possible group to get something decided.
- Use **email** instead of GitHub discussions or Matrix
    - **core-team**: Core team only
    - **community-team**: Invitation-only, community team
    - **mathesar-developers**: Public
- Current team events will be core team only.

Community organization

- Monthly community team social call, starting in June.
- Community will also be updated through mailing lists and Matrix.
- We should continue to mark issues as **help wanted** if we can accept PRs for them.

Staying on Track

- Sub-teams should be checking in at least 3 times a week to keep each other accountable to staying on track with the plan.
    - This can be either on chat or on a call.
- Everyone should be aiming to spend 1-2 days per PR or problem.
    - Break things down into small enough tasks that this is practical.
    - Take extra time to plan in the beginning, that will save time later.
    - If something is taking longer, talk to somebody with fresh eyes.
- Please email the **core-team** list ASAP if stuck on something, someone else may have ideas

Other Changes

- The roadmap will be updated to be cycle based rather than feature based
- We're still hiring a localization engineer and we'll need to figure out our interview plan.

New communication rituals

What	When	Sender	Recipients
Cycle kickoff	First week of new cycle	Kriti	community-team & mathesar-developers
Standup	Mondays and Wednesdays	All core team members	core-team
Weekly updates	Fridays	One person from each sub-team	community-team
Cycle retrospective	During cool down	Kriti	community-team & mathesar-developers