

Building Apps “With Not For”

School of Data, CUNY Law School, March 7th, 2020

Hi, I'm Devin Balkind

I build software solutions for businesses, nonprofits and government agencies.

I also train people to create their own databases and apps as easily and accessible as possible!

I think DIY databases are doing for data what CMS's did for publishing: democratizing access!



@devinbalkind on Twitter

devin@sarapis.org

I Work for Sarapis

Greek god of information management.

Great Library of Alexandria was dedicated to they/them.

Sarapis takes on the characteristics of popular local gods to gain people's trust and then encourages them to adopt open data standards and share information in accessible and useful ways.



@sarapisorg on Twitter

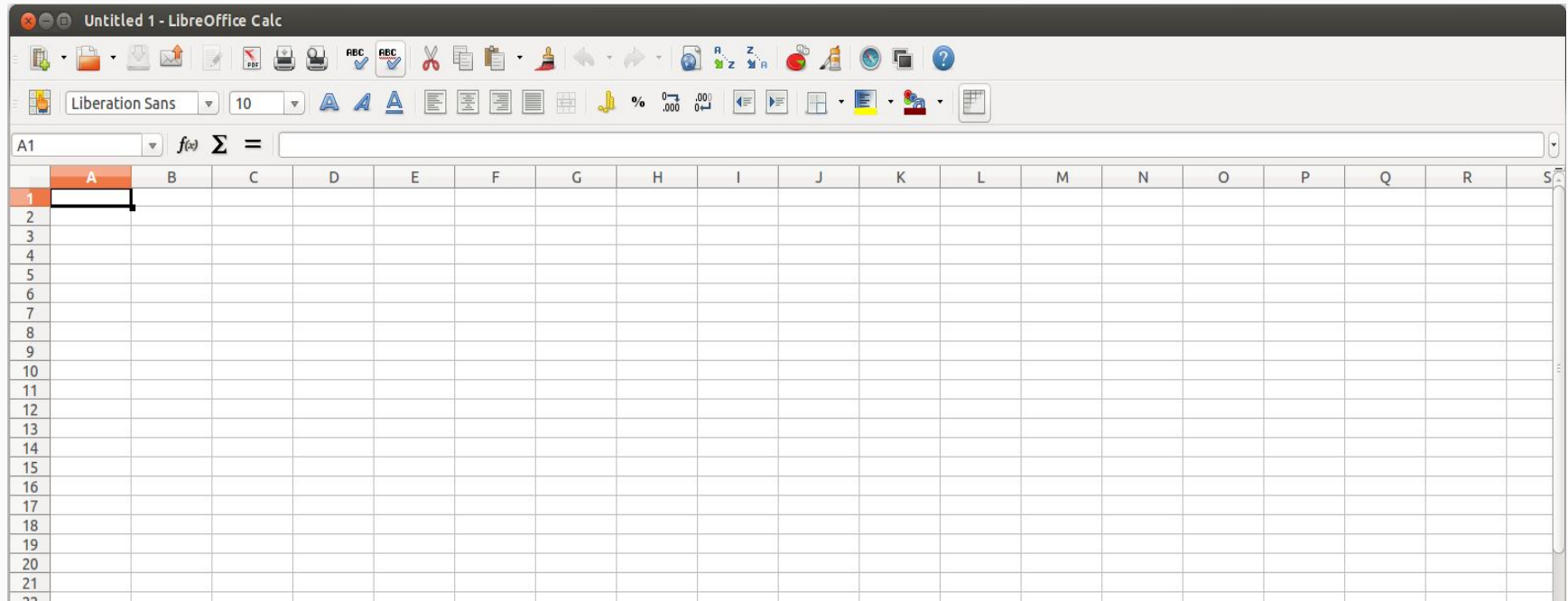
info@sarapis.org

Our Plan Today


















































































































































- Intro DIY Databases
- Data Basics
- Making a Specification
- Applying this to the CBDB
- Reviewing Airtable (optional)
- Q & A etc

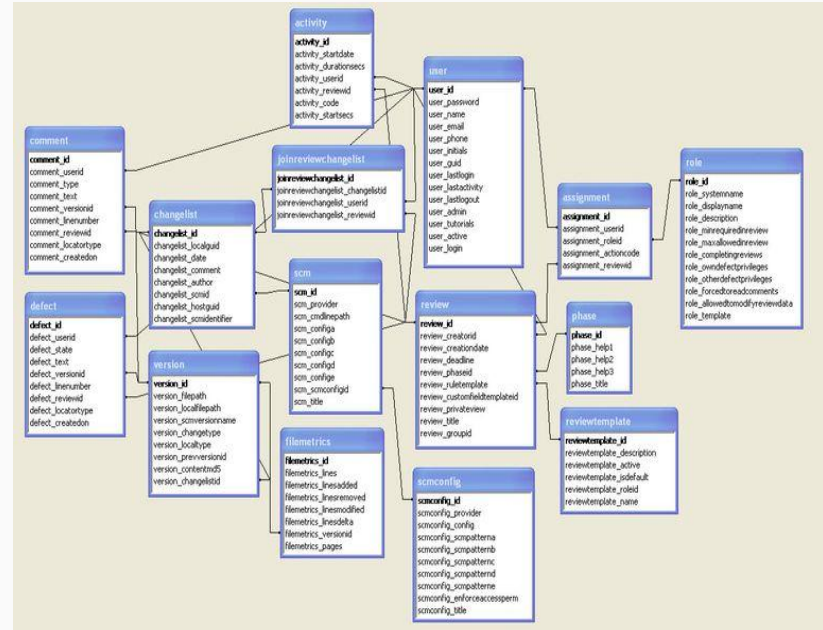
Intro to DIY Databases

Spreadsheets Are Designed for People



Databases are Designed for Computers

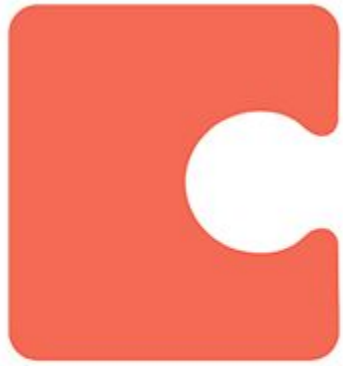
	Field	Type	Collation	Attributes	Null	Default	Extra	Action							
<input type="checkbox"/>	id	int(11)			No	None	auto_increment								
<input type="checkbox"/>	mailinglistID	int(11)			No	None									
<input type="checkbox"/>	Prefix	varchar(100)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Forename	varchar(50)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Surname	varchar(50)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Email	varchar(50)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Company_Name	varchar(50)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Jobrole	varchar(100)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Add1	varchar(200)	latin1_swedish_ci		Yes	NULL									
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<input type="checkbox"/>	Add4	varchar(200)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Town	varchar(200)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	County	varchar(200)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Postcode	varchar(200)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Phone	varchar(18)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Spend	int(11)			No	0									
<input type="checkbox"/>	Active	varchar(3)	latin1_swedish_ci		No	Yes									
<input type="checkbox"/>	Turnover	varchar(256)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	NoEmployees	varchar(256)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Username	varchar(500)	latin1_swedish_ci		Yes	NULL									
<input type="checkbox"/>	Password	varchar(500)	latin1_swedish_ci		Yes	NULL									



DIY Databases: Spreadsheet Ease, Database Utility

mygovnyc-meta ▾							
Bases ▾ Data Source Component Data Taxonomy Contacts +							
Grid view Hide fields Filter Group Sorted by 1 field Color ...							
<input type="checkbox"/>	Public Name	Public URL	Status	internal name	internal URL	Datasets	Desc
1	mygovnyc-services	/services	Integrated	mygovnyc - services	https://airtable.com/tbl...	Benefits and Programs API on NYC Open Data	Open Re
2	mygovnyc-money-fy2019	/projects	Integrated	mygovnyc-money-fy2019	https://airtable.com/ap...	2018 Expense Budget 2019 Capital Budget Register of Community Boa 2019 Ca	
3	mygovnyc-politicians	/elections	Integrated	mygovnyc-politicians	https://airtable.com/tblr...	Endorsements in the 2017 New York City Primary Elections, via Gotham C	Disclo
4	mygovnyc-organizations	/organizations	Integrated	mygovnyc-organizations	https://airtable.com/tbl...	City Council Webiste Community Board Directory NYC.Gov Agency Dire	City Age
<input type="checkbox"/>	Greenbook	/people	Integrated	Greenbook		Greenbook on NYC Open Data	*The Gre
6	Laws	/laws	Integrated	Laws	readthedocs	NYC Agency Rules NYC Charter NYC Administrative Code	
7	mygovnyc-meta		Development	mygovnyc-meta	https://airtable.com/tbl...		This Air
8	mygovnyc-people		archived	mygovnyc-people	https://airtable.com/tbl...	NYC.Gov Agency Directory Greenbook on NYC Open Data	Greenbo
9	mygovnyc-money		archived	mygovnyc-money	https://airtable.com/tbl...	Register of Community Board Budget Requests API Expense Budget on 2017 Ca	
10	mygovnyc - contacted - services		archived	mygovnyc - contacted - servi...	https://airtable.com/tbl...	Verified Locations for NYC City-Funded Social Service Contracts FY2018	
11	mygov-cbrequests-fy2019	/organization_x/requests	archived	mygov-cbrequests-fy2019	https://airtable.com/ap...	Register of Community Board Budget Requests	Scrape f
12	test-mygovnyc-services-api+contracts - sept2018		evaluating	test-mygovnyc-services-api+...	https://airtable.com/tbl...	Verified Locations for NYC City-Funded Social Service Contracts FY2018	Open da
+							

Two Great Solutions



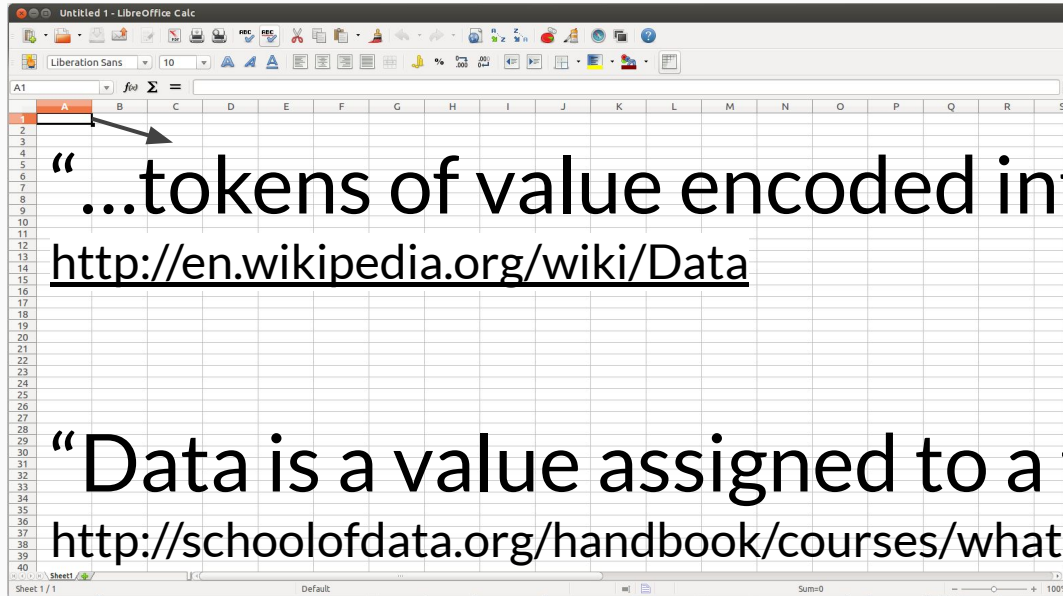
coda



Airtable

What is Data?

What is Data?



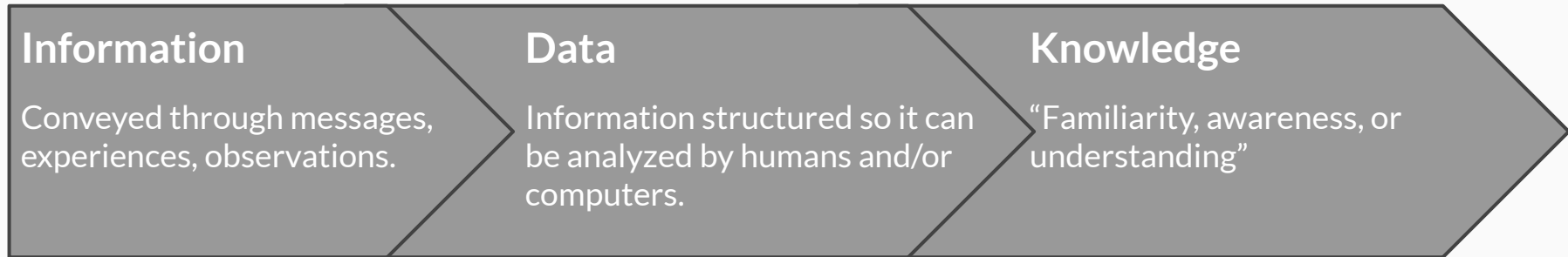
“...tokens of value encoded into information.”

<http://en.wikipedia.org/wiki/Data>

“Data is a value assigned to a thing.”

<http://schoolofdata.org/handbook/courses/what-is-data>

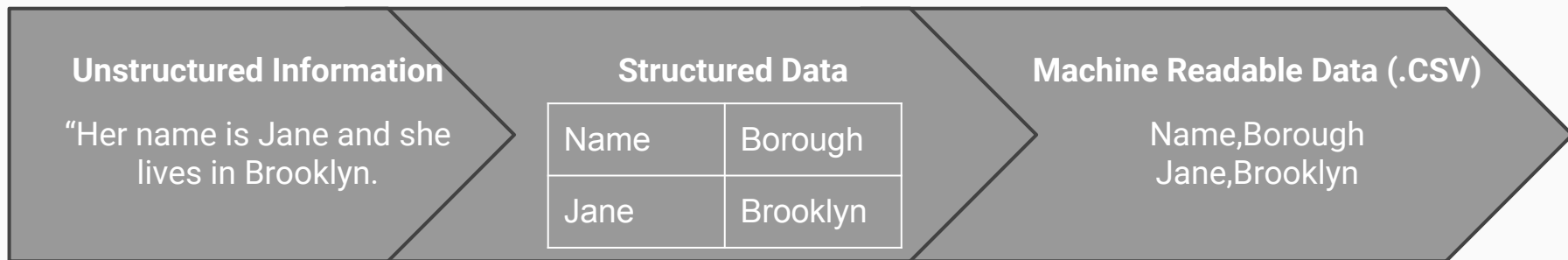
Structuring Information to Create Knowledge



<http://en.wikipedia.org/wiki/Knowledge>

Common Data Structure: Key-Value Pair

- **Key** defines what is being described. (Ex. "Name")
- **Value** does the describing. (Ex. "Jane")



Data Models Are Structures for Information

“The top row of the spreadsheet.”

Data models answer questions like:

- How do you describe something?
- What terms do you use to classify something?
- How does one thing relate to another?

The screenshot shows a spreadsheet titled "ORnycServices" with a table of services. The header row is highlighted in blue and contains the following columns: name, organization, alternate_name, and description. A blue arrow labeled "Key" points to this header row. The data rows are highlighted in white and contain the following information:

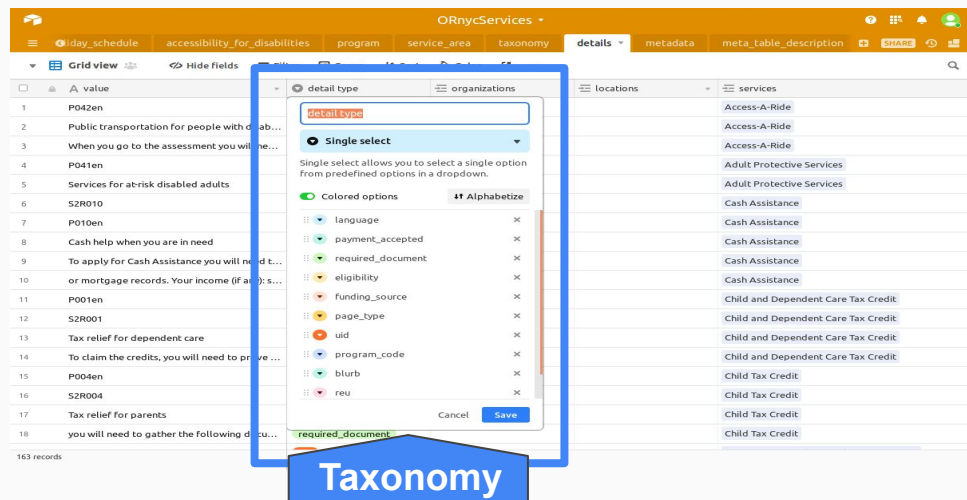
	name	organization	alternate_name	description
1	Access-A-Ride	NYC Metropolitan Transportation Authority	AAR	If you have a disability that makes it difficult to use public transportation, you may be eligible for Access-A-Ride.
2	NYC Family Justice Centers	Mayor's Office to Combat Domestic Violence	FJCs	People who experience domestic violence can get help at a Family Justice Center.
3	Special Education Parent Centers	NYC Department of Education	Family services for students with special needs	Special Education Parent Centers provide information and support to parents of students with special needs.
4	NYC Well	NYC Department of Health & Mental Hygiene	NYC Well	NYC Well is your connection to mental health services in NYC.
5	Adult Protective Services	NYC Human Resources Administration	APS	If you have a mental and/or physical disability, you may be eligible for Adult Protective Services.
6	Home Care Services Program	NYC Human Resources Administration	HCSP	People who need care can get help from the Home Care Services Program.
7	HIV/AIDS Services Administration	NYC Human Resources Administration	HASA	HASA helps people and families affected by HIV/AIDS.
8	Early Childhood Direction Centers	NYC Department of Education	ECDC	If you have a child with physical or mental disabilities, you may be eligible for Early Childhood Direction Centers.
9	Cash Assistance	NYC Human Resources Administration	Cash help when you are in need	Your family can get cash if you are in need.
10	Child and Dependent Care Tax Credit	NYC Department of Consumer Affairs	CTC	This tax credit helps working families pay for child and dependent care.
11	Child Tax Credit	NYC Department of Consumer Affairs	CTC	CTC allows people with qualified children to get a tax credit.
12	Commodity Supplemental Food Program	NYC Department of Health	CSFP	CSFP gives healthy food to low-income people.
13	Comprehensive After School System of Care	NYC Department of Youth & Community Services	COMPASS NYC	Students can join one of hundreds of after-school programs.
14	Disability Rent Increase Exemption	NYC Department of Finance / NYC Housing	DRIE	DRIE provides a rent freeze to tenants with disabilities.
15	Disabled Homeowners Exemption	NYC Department of Finance	DHE	People with disabilities who own homes may be eligible for the Disabled Homeowners Exemption.
16	EarlyLearn NYC Child Care	NYC Administration for Children's Services	EarlyLearn NYC Head Start program	Your child can get free child care through EarlyLearn NYC Head Start.
17	EarlyLearn NYC Head Start	NYC Administration for Children's Services	EarlyLearn NYC Head Start program	EarlyLearn NYC Head Start provides free child care and early education for eligible children.
18	Earned Income Tax Credit	NYC Department of Consumer Affairs	EITC	EITC can provide a tax refund or credit for low-income workers.

Taxonomies Make Classification Possible

These are the categorical options.

In spreadsheets, you can create term lists using “data validation” functions.

In AirTable, you can use single or multi-select data types.



Data Models Can Emerge Organically

Data models, like walking paths, can emerge naturally as people perform their tasks.

Watch how people are already organizing information, and use the data model concept to formalize that structure to create data that is more useful than before.



Formalizing Data Models into Standards

If groups use the same data model, then it becomes very easy for them to share data between their systems.

Data Standards are “official” data models meant to be utilized by many groups.

Components of a Standard

- Brand & Identity
- Governance Structure
- User Community
- Documented Data Model
- Tools for using the Data Model

Living Data Models Require Governance

Data model need to change over time so they need a clear processes for deciding what to change and when.

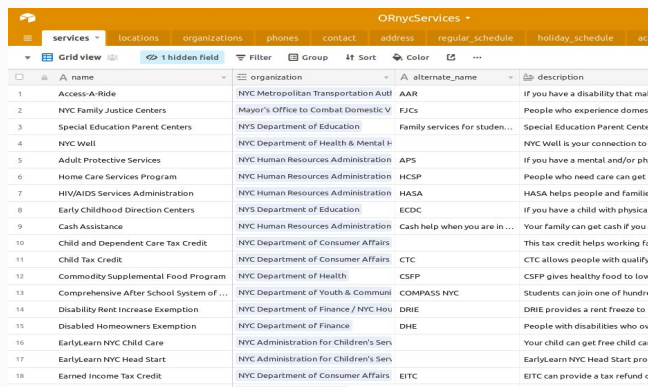
Open Referral semi-regular video meetings and a suite of online collaboration tools to arrive at consensus-based decisions.



Let's Make a
Specification

Apps Offer Views of Data

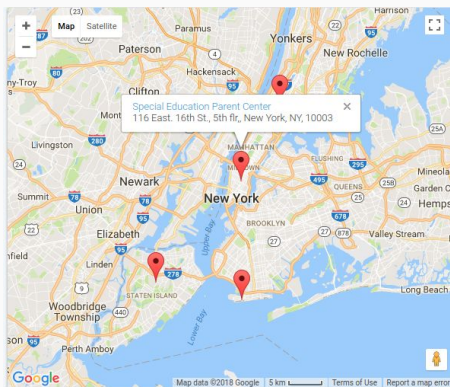
Enabling users to interact with data visually, often offering basic configuration options such as filter, search and interact.



The screenshot shows the ORnycServices application interface. At the top, there are tabs for 'services', 'locations', 'organizations', 'phones', 'contact', 'address', 'regular_schedule', and 'holiday_schedule'. Below the tabs, there is a 'Grid view' button and a 'Filter' button. The main content area displays a table with columns for 'name', 'organization', 'alternate_name', and 'description'. The table lists various services such as 'Access-A-Ride', 'NYC Family Justice Centers', 'Special Education Parent Centers', 'NYC Well', 'Adult Protective Services', 'Home Care Services Program', 'HIV/AIDS Services Administration', 'Early Childhood Direction Centers', 'Cash Assistance', 'Child and Dependent Care Tax Credit', 'Child Tax Credit', 'Commodity Supplemental Food Program', 'Comprehensive After School System of ...', 'Disability Rent Increase Exemption', 'Disabled Homeowners Exemption', 'EarlyLearn NYC Child Care', 'EarlyLearn NYC Head Start', and 'Earned Income Tax Credit'.

	name	organization	alternate_name	description
1	Access-A-Ride	NYC Metropolitan Transportation Authority	AAR	If you have a disability that makes it difficult to use public transportation...
2	NYC Family Justice Centers	Mayer's Office to Combat Domestic Violence	FJCs	People who experience domestic violence...
3	Special Education Parent Centers	NYC Department of Education	Family services for students with special needs	Special Education Parent Centers...
4	NYC Well	NYC Department of Health & Mental Hygiene	NYC Well	NYC Well is your connection to mental health services...
5	Adult Protective Services	NYC Human Resources Administration	APS	If you have a mental and/or physical disability...
6	Home Care Services Program	NYC Human Resources Administration	HCSHP	People who need care can get it at home...
7	HIV/AIDS Services Administration	NYC Human Resources Administration	HASA	HASA helps people and families with HIV/AIDS...
8	Early Childhood Direction Centers	NYC Department of Education	ECDC	If you have a child with physical or mental disabilities...
9	Cash Assistance	NYC Human Resources Administration	Cash help when you are in need	Your family can get cash if you are eligible...
10	Child and Dependent Care Tax Credit	NYC Department of Consumer Affairs	CTC	This tax credit helps working families...
11	Child Tax Credit	NYC Department of Consumer Affairs	CTC	CTC allows people with qualifying children to get a tax credit...
12	Commodity Supplemental Food Program	NYC Department of Health	CSFP	CSFP gives healthy food to low-income families...
13	Comprehensive After School System of ...	NYC Department of Youth & Community Development	COMPASS NYC	Students can join one of hundreds of after-school programs...
14	Disability Rent Increase Exemption	NYC Department of Finance / NYC Housing	DRIE	DRIE provides a rent freeze to eligible tenants...
15	Disabled Homeowners Exemption	NYC Department of Finance	DHE	People with disabilities who own their homes can get a property tax exemption...
16	EarlyLearn NYC Child Care	NYC Administration for Children's Services	EarlyLearn	Your child can get free child care...
17	EarlyLearn NYC Head Start	NYC Administration for Children's Services	EarlyLearn	EarlyLearn NYC Head Start provides early education and health services...
18	Earned Income Tax Credit	NYC Department of Consumer Affairs	EITC	EITC can provide a tax refund to eligible workers...

Grid/Table



Map

Disabled Homeowners Exemption

NYC Department of Finance

Cash & expenses

Call DHE Call 212-639-9675, or 212-639-9675 (out-of-City), or TTY 212-639-9675 (hearing impaired)

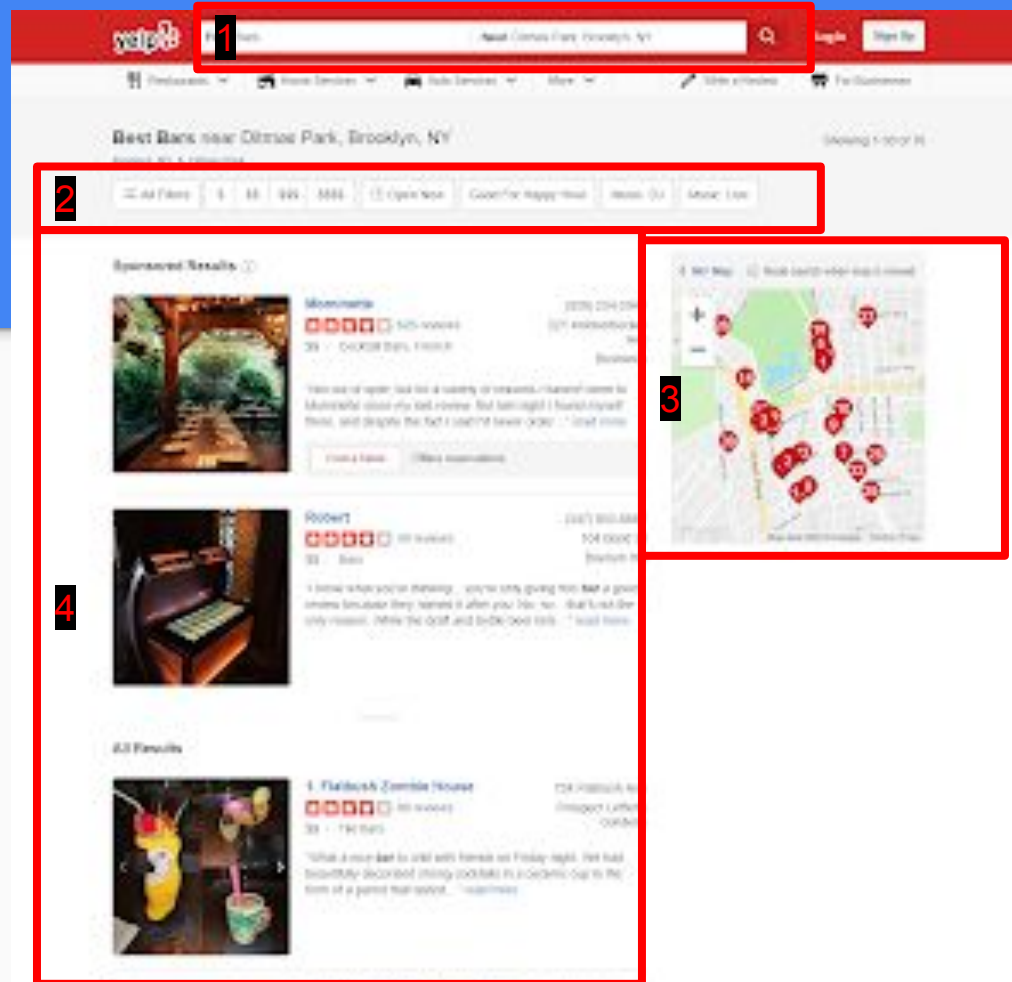
::

People with disabilities who own their homes can get their property tax lowered through DHE. The reduction is from five percent of their tax to half of it. How much the tax is reduced depends on how much your family earns. Lower property tax for homeowners with disabilities. Applications must be postmarked by March 15th for benefits to begin on July 1st each year. All owners must be persons with disabilities unless the property is owned by your spouse or by siblings, who do not need to be disabled. If your property qualifies for DHE and the Senior Citizen Homeowner Exemption (SCHE), you will only be granted SCHE, you cannot get both. To be eligible for DHE, you should be able to answer yes to all of these questions: Are all owners persons with disabilities, OR are other owners the spouses or siblings of the person(s) with disabilities? Is the property your primary residence? Is the combined income for all owners less than or equal to \$37,399 per year? Income does NOT include SSI or Cash Assistance benefits.

Card

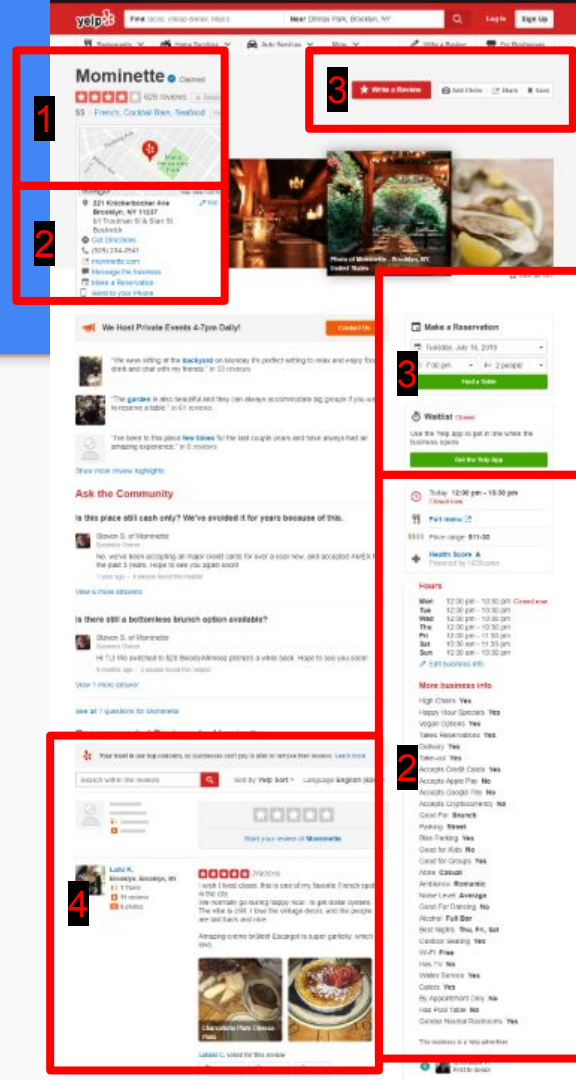
Basics Elements

1. Search
2. Filter
3. Cards
4. Map

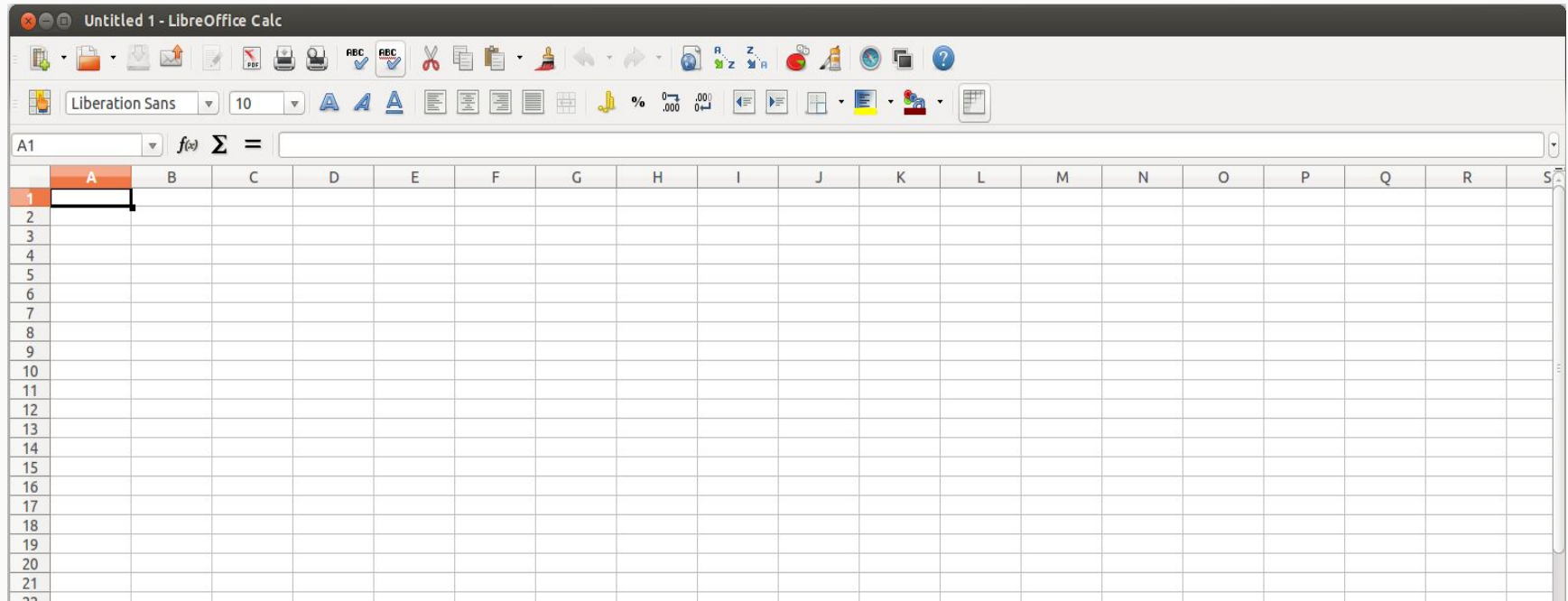


Classify the Sections

1. Map
2. Profile Data
3. Interactions
4. Comment



Imagine Building That With A Few of These



Two Main Ingredients

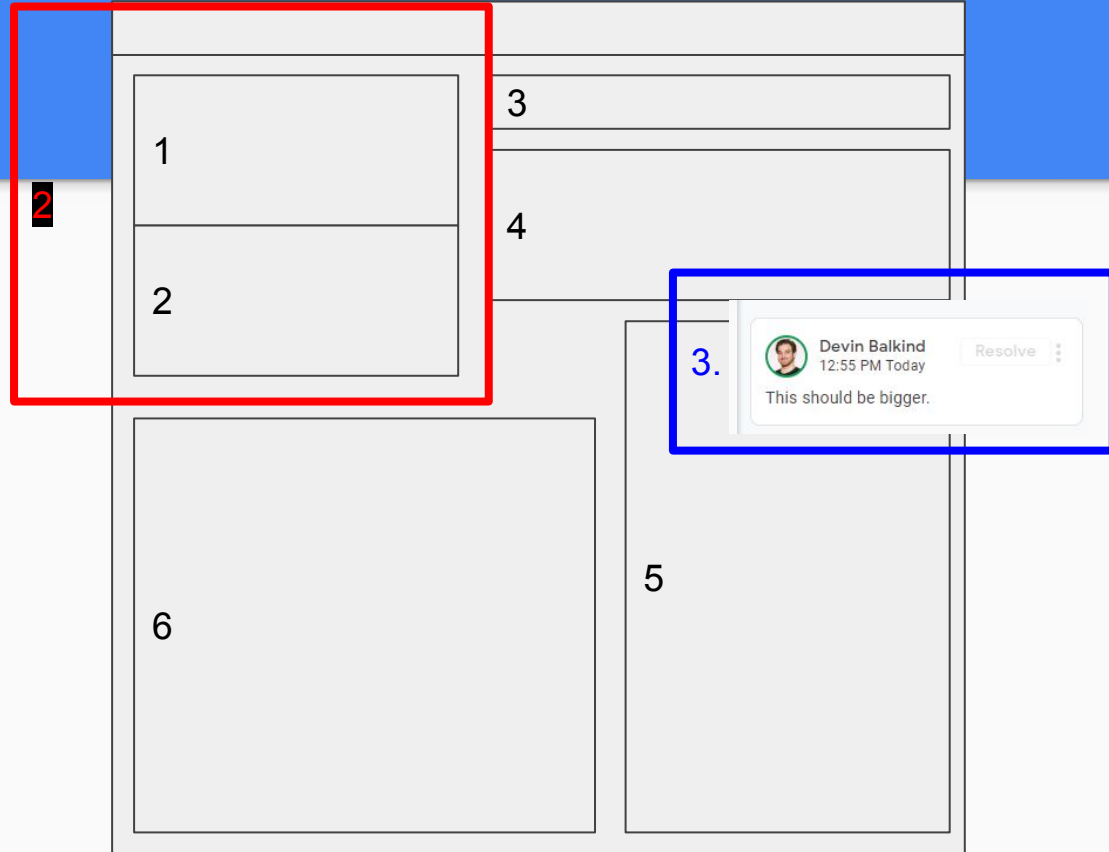
- **Airtable** is our data model.
- **Google Slides** is our wireframing tool.

Why?

- Because they're free and easy to use!
- People without specialized skills can do it.

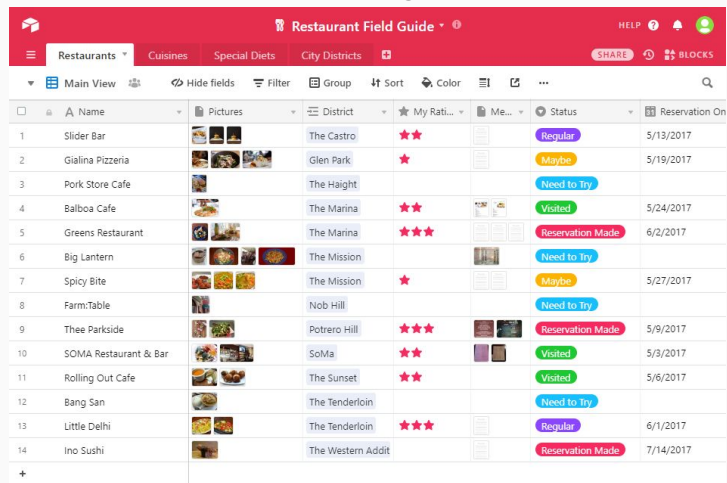
Wireframing!

1. Numbered list on the left references the wireframe boxes on the right.
2. Red boxes are used to highlight an area.
3. We can use Google Slides comments feature to discuss specific elements.



+ Fields

Switch numbers for field references from your Airtable.



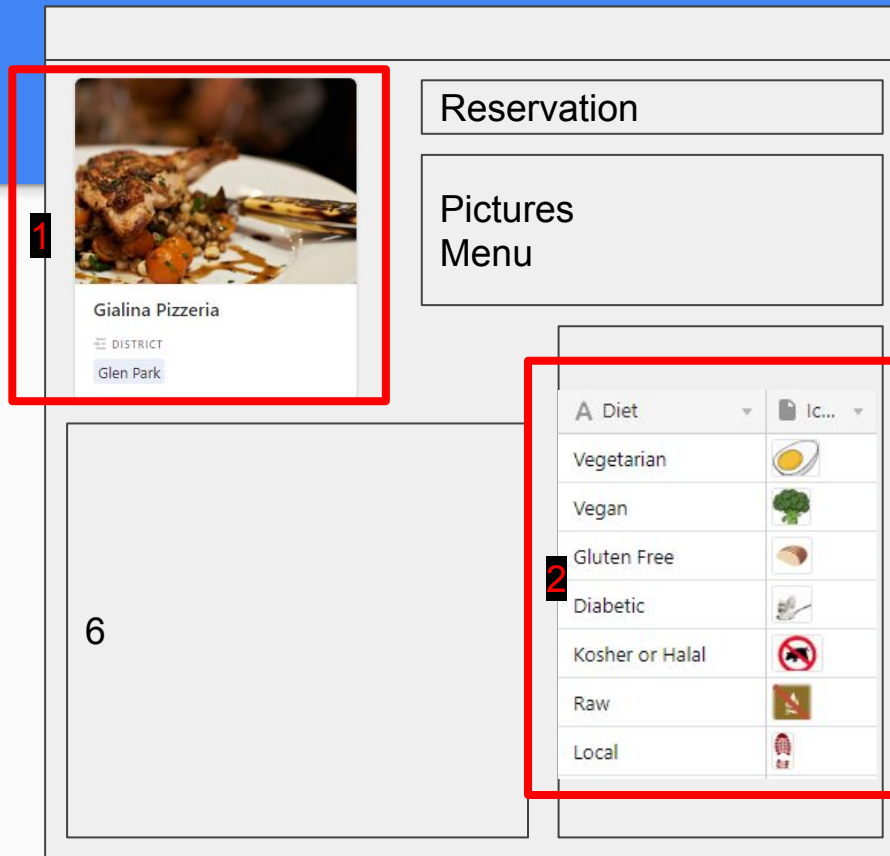
	Name	Pictures	District	My Rating	Me...	Status	Reservation On
1	Slider Bar		The Castro	★★		Regular	5/13/2017
2	Gialina Pizzeria		Glen Park	★		Maybe	5/19/2017
3	Pork Store Cafe		The Haight			Need to try	
4	Balboa Cafe		The Marina	★★		Visited	5/24/2017
5	Greens Restaurant		The Marina	★★★		Reservation Made	6/2/2017
6	Big Lantern		The Mission			Need to try	
7	Spicy Bite		The Mission	★		Maybe	5/27/2017
8	Farm:Table		Nob Hill			Need to try	
9	Three Parkside		Potrero Hill	★★★		Reservation Made	5/9/2017
10	SOMA Restaurant & Bar		SoMa	★★		Visited	5/3/2017
11	Rolling Out Cafe		The Sunset	★★		Visited	5/6/2017
12	Bang San		The Tenderloin			Need to try	
13	Little Delhi		The Tenderloin	★★★		Regular	6/1/2017
14	Ino Sushi		The Western Addit			Reservation Made	7/14/2017

Name District Status	Reservation
2	Pictures Menu
6	Cost Brunch Delivery Cuisine Website Notes Good For My Rating

+ Views

Take screenshots of Airtable views to get even more specific.

This enables you to see real examples of what it means for your fields to appear in an app.

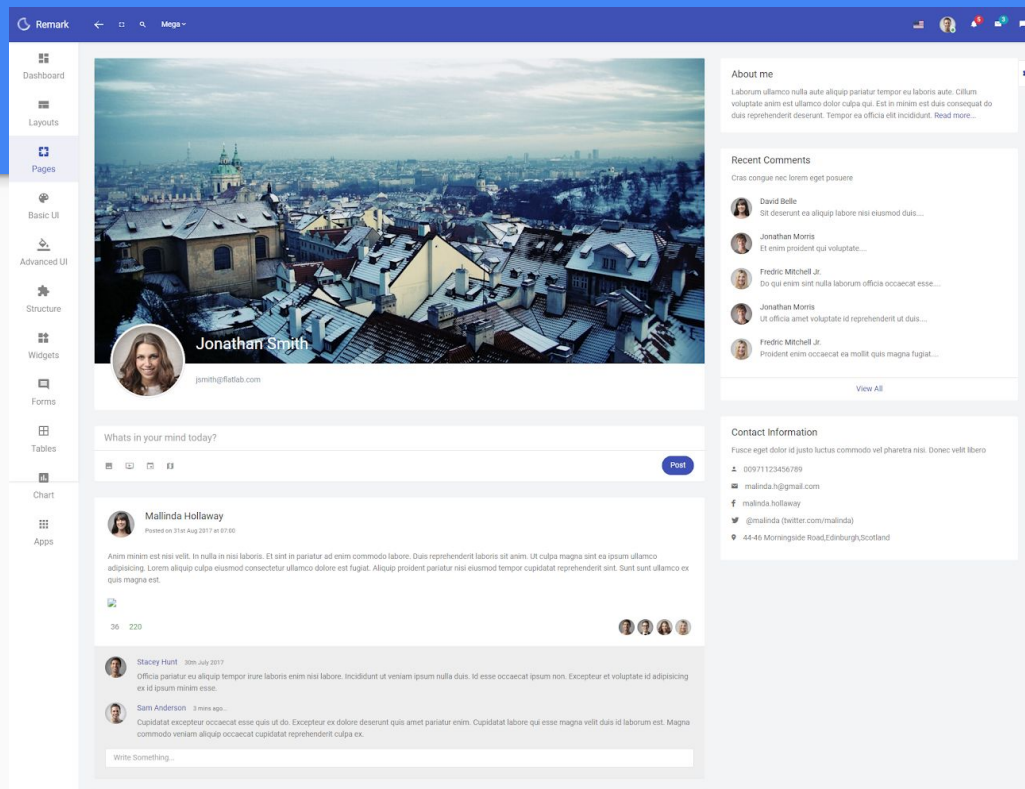


Find a Theme

There are THOUSANDS of **prebuilt design templates** using standard design patterns like Bootstrap and Material - that cost **\$20-50**.

Example: [Remark](#)

More at [Envato](#)



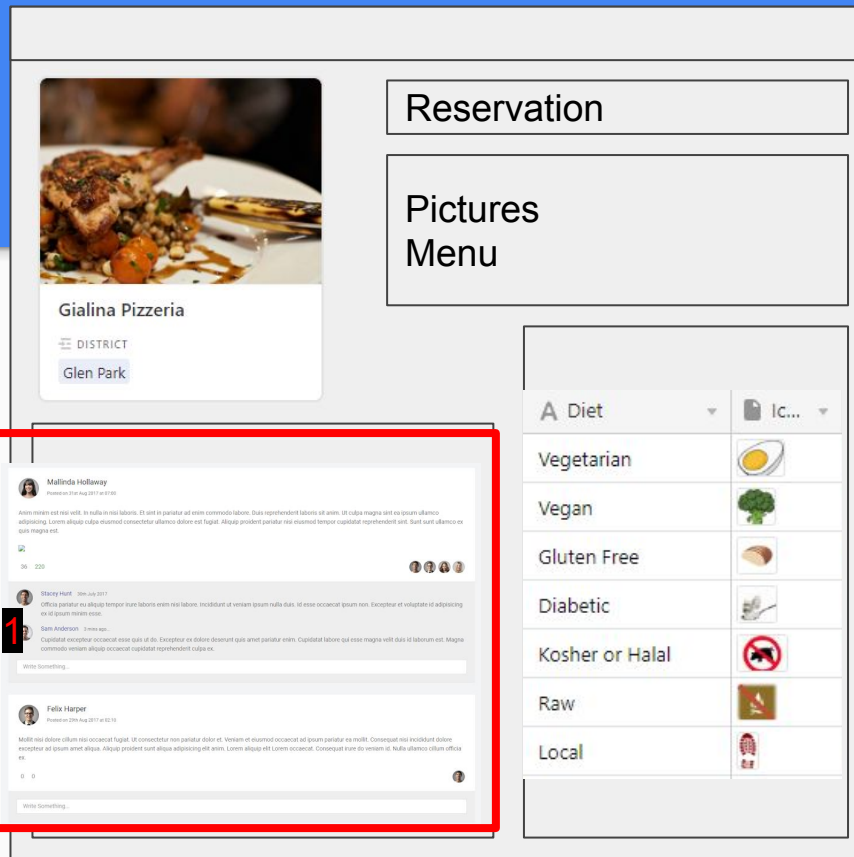
<https://getbootstrapadmin.com/remark/material/iconbar/pages/project.html>

+ Elements

Lift components right out of the designs.

The code is all there for the developers.

Makes life easy for everyone!



Share Your Airtable Data

Airtables have APIs and auto-generated docs.

Share that with a developer and they have your data model AND live data right there.

The image shows the Airtable API documentation for the "Restaurant Field Guide" table. The documentation is organized into sections: INTRODUCTION, RATE LIMITS, AUTHENTICATION, RESTAURANTS TABLE, CUISINES TABLE, and SPECIAL DIETS TABLE. The RESTAURANTS TABLE section is expanded, showing a list of fields with their names, types, and descriptions. The fields are: Reservation On (Date), Website (URL), Name (Text), Status (Single select), and Cuisine (Link to another record). Each field has a corresponding "EXAMPLE VALUES" section. The "Reservation On" field has example values: "2017-05-13", "2017-05-15", "2017-05-24", "2017-06-02", and "2017-05-27". The "Website" field has example values: "http://www.aldestarusa.com/san-francisco", "http://www.gialina.com/", "http://www.porkatorecafe.com/", "http://www.halboscafe.com/san-francisco/", and "http://www.greenrestaurant.com/". The "Name" field has example values: "Slider Bar", "Gialina Pizzeria", "Pork Store Cafe", "Halbos Cafe", and "Greens Restaurant". The "Status" field has example values: "Need to Try", "Visited", "Reservation Made", "Maybe", "Try Again", and "Regular". The "Cuisine" field has example values: "rec113d6d4608ad" and "rec143d6d4608ad".

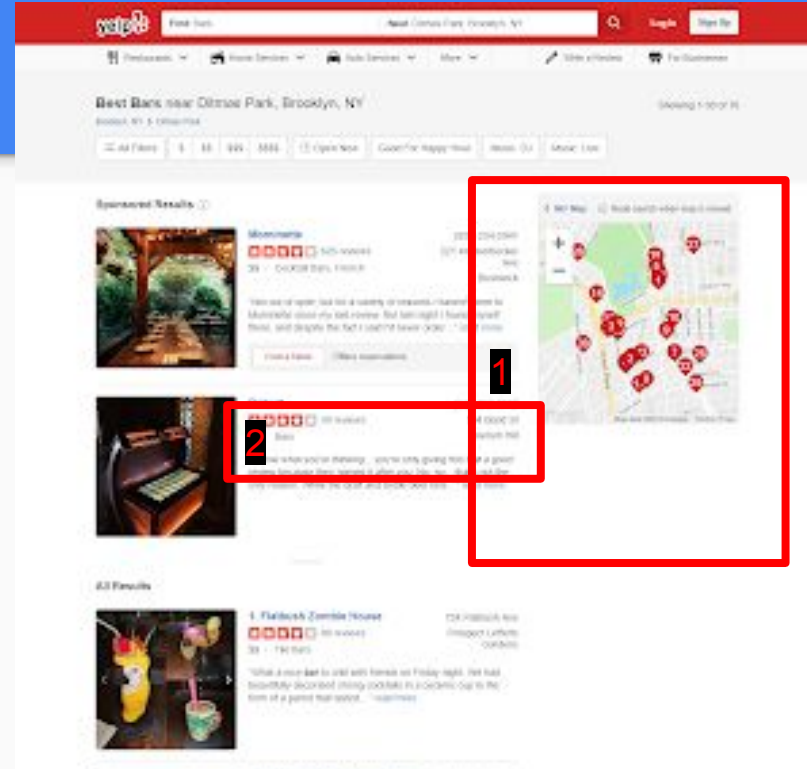
FIELD NAME	TYPE	DESCRIPTION	EXAMPLE VALUES
Reservation On	Date	string (ISO 8601 formatted date) UTC date, e.g. "2014-09-05".	"2017-05-13" "2017-05-15" "2017-05-24" "2017-06-02" "2017-05-27"
Website	URL	string A valid URL (e.g. airtable.com or https://airtable.com/universe).	"http://www.aldestarusa.com/san-francisco" "http://www.gialina.com/" "http://www.porkatorecafe.com/" "http://www.halboscafe.com/san-francisco/" "http://www.greenrestaurant.com/"
Name	Text	string A single line of text.	"Slider Bar" "Gialina Pizzeria" "Pork Store Cafe" "Halbos Cafe" "Greens Restaurant"
Status	Single select	string Selected option name, chosen from "Need to Try", "Visited", "Reservation Made", "Maybe", "Try Again" and "Regular".	["Need to Try", "Visited", "Reservation Made", "Maybe", "Try Again", "Regular"]
Cuisine	Link to another record	array of record IDs (strings) Array of linked records (IDs from the Cuisines table. The order of record IDs will be reversed compared to what you see in the app).	["rec113d6d4608ad", "rec143d6d4608ad"]

Time for Development

Once you have an app up, replace your wireframes with screenshots.

Make boxes with numbered items and/or comments like:

1. Extend Map to below second card.
2. Put yellow background behind restaurant names.



Let's review what we we've made...

- A working data model that we've used with real data.
- Wireframes in an accessible, shareable, commentable format that everyone can review and feel comfortable with.
- We've connected our data model to our wireframe so we know if there are any gaps.
- We've identified standard UI elements and code to implement them.
- **Results: Few if any questions from our developers and completely transparent data and interface mockups for our clients/decision-makers!**



Introduction to CBDB

More info at beta.nyc/products/cbdb



The Community Board Database (CBDB) Project is a collaboration between BetaNYC, Sarapis and the Manhattan Borough President's Office.

The goal is to deliver issue tracking and constituent relationship management (CRM) tools to New York City Community Boards.

Our Process

1. We'll organize your current information systems (docs, spreadsheets, etc), analyze it to create a generic model.
2. Use that to create a custom database (AirTable) with your information already in it. It'll be very useful to you!
3. Work with you to design the interface and features for a frontend you can use to manage your CB.
4. We'll implement those features as open source software, import your data, and train you to use it.

1. Information Organizing

CBs give us their existing information sources.

We compare and contrast them to discover a shared data model that accommodates all CBs.

Humanitarian Services Data Model					
File Edit View Insert Format Data Tools Add-ons Help Last edit was yesterday at 8:46 PM					
fx					
1	Field Label	HXL Tag	OpenReferral Flat	Advisor.UNHCR	SBTF + HXL
2	Organization Name	#org+name	x	Service Provider	#org+name
3	Organization type	#org+type			x
4	Service description	#service+descrip	x	Activity Details	#activity+description
5	Service type	#service+type		x	#activity+type
6	Service town(s)	#loc+town	x	City Name	#loc+town
7	Service country	#country+name	4a.	Geolocation	#country
8	Address	#loc+address	address_1, state, province	postal_code	
9	Location Name	#loc+name			
10	Status	#service+status	x		
11	Group Contact	#contact+name	x		#contact
12	Phone	#contact+phone	x		
13	Email	#contact+email	x		#contact
14	Language(s)	#service+language	x		#meta+url
15	Source link	#meta+url	x		#x_language
16	Latitude	#geo+lat		x	
17	Longitude	#geo+lon		x	
18	Eligibility	#service+eligibility	4.	5.ake Criteria	6.
19	Schedule	#service+schedule	regular schedule, holiday	x hours	
20	Process	#service+process	required documents, application process		
21	Last Updated	#date+update		x	x
22	service area		x	x	
23	org description		x		
24	org email		x		
25	org url		x		
26	service name		x		
27	service email		x		
28	contact title		x		
29	department		x		
30	contact phone extension		x		
31	payments		x		
32	interpretation services		x		
33	4b. accessibility		x	x	
34	Start Date			x	
35	End Date			x	

2. Build a Generic Data Model

We take a “kitchen sink” approach: building an AirTable template that accommodates all the CBs data.

This system connects all their data together to create something immediately useful to the CB.

Organizations					Politicians	Campaigns	Endorsements	Offices	Elections	Parties	sources	contact us	General Information
Main View					Hide fields	Filter	Group	Sort	Color				
Organization					Email	Twitter	Website						
32BJ SEIU (Service Employees International ...					ithelpdesk@32BJFUNDS.COM	https://twitter.com/32bjseiu?lang=en	http://www.seiu32bj.org/						
504 Democratic Club						https://twitter.com/504dems?lang=en	http://www.the504dems.org/nort						
1199 SEIU (Service Employees International ...						https://twitter.com/1199SEIU	https://www.1199seiu.org/						
ACTUAW Local 7902					mail@actuaw.org	https://twitter.com/uaw7902/status/568485...	http://www.actuaw.org/wp/						
AFM Local 802 (American Federation of Mus...					rodriguez@local802afm.org	https://twitter.com/Local_802_AFM	http://www.local802afm.org/						
Alliance of South Asian American Labor					info@asaal.org	https://twitter.com/ASAAL08	http://www.asaal.org/						
Allied Printing Trades - City of New York					online@cwa-union.org		https://alliedlabel.org/						
Amalgamated Transit Union					droscow@ATU.ORG	https://twitter.com/ATUComm	https://www.atu.org/						
Amalgamated Transit Union (ATU) Local 726					atudanny@HOTMAIL.COM	https://twitter.com/atulocal726?lang=en	http://www.atu726.com/						
Amalgamated Transit Union International (A...					mrwilluwer@yahoo.com		http://www.local1056.org/						
Amalgamated Transit Union International (A...						https://twitter.com/atu1179?lang=en	http://www.atu1179.com/						
Amalgamated Transit Union International (A...					dscala@local1181atu.com		http://atu1181.org/						
Amalgamated Workers Union Local					christchurch@awunz.co.nz	https://twitter.com/atulocal689?lang=en	http://www.awunz.co.nz/						
American Communications Assn					philauter@gmail.com		http://www.americancomm.org/						
American Federation Government					comments@afge.org	https://twitter.com/afgenational	https://www.afge.org/						
American Maritime Offices					pfalero@amo-union.org		http://www.amo-union.org/default						
Amsterdam News					info@amsterdamnews.com	https://twitter.com/NYAmNews	http://amsterdamnews.com/						
Ansonia Independent Democratic Club						https://twitter.com/valleinvind?lano=en	https://www.ansoniademocrats.o						

2.1 Your Airtable is your CRM

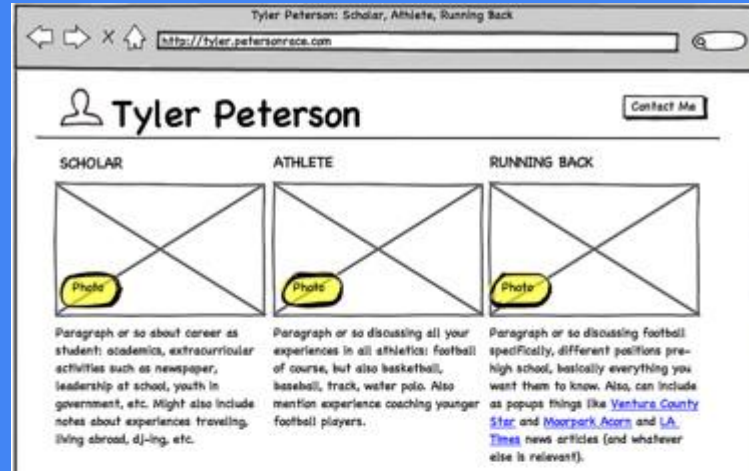
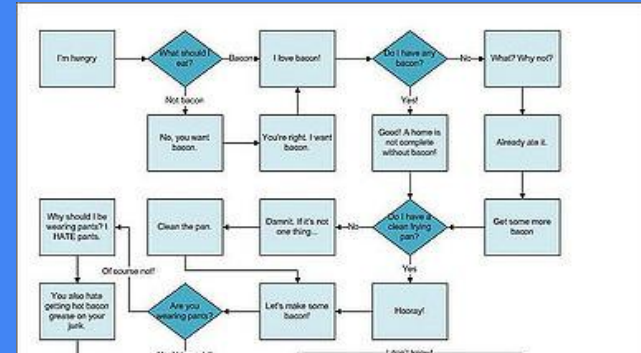
CBs use the template to do a lot of things:

- Track issues and them up to date.
- Track contacts, organizations, agencies, events, and more!
- Share this information.
- Extended features include mapping, email and SMS messaging and more.

We regularly analyze what fields and tables CBs are using to optimize the template until we're confident we have a data model worth building into a custom application.

3. Codesign the Interface

Using our template, we're ready to go through a user-centered-design process to determine the flows, screens and interface elements needed to deliver CBs the app of their dreams.



4. Implement in Open Source

With the user interface designs and the Airtable data model, we'll be ready to code our app.

We can pick the best open source software package to work with. Meanwhile, CBs are still using their Airtables, which naturally, through their use, organize their data to ultimately be imported into whatever custom app emerges.



```
if ($(window).scrollTop() > header1_initialDistance) {  
  if (parseInt(header1.css('padding-top'), 10) >= header1_initialPadding) {  
    header1.css('padding-top', '' + $(window).scrollTop() - header1_initialDistance);  
  } else {  
    header1.css('padding-top', '' + header1_initialPadding + 'px');  
  }  
  
if ($(window).scrollTop() > header2_initialDistance) {  
  if (parseInt(header2.css('padding-top'), 10) >= header2_initialPadding) {  
    header2.css('padding-top', '' + $(window).scrollTop() - header2_initialDistance);  
  } else {  
    header2.css('padding-top', '' + header2_initialPadding + 'px');  
  }  
}
```

Final Thought

DIY Databases Enable Government Reform

If you want to change how an institution does things, you have to be able to change its information management systems.

Many database technology requires specialized software & coding skills so front line staff have to appeal to hierarchies to get things changed.

By empowering the people who actually know what changes need to be made with the technology tools to operationalize those changes, DIY databases could enable much needed bureaucratic innovation and reform.

DIY Databases for Government!

WeGov.NYC is a community building information management tools to make NYC government, more open, engaging and effective so it can deliver services to its residents and provide leadership to our region and the world.

If you're interested in that, visit our website WeGov.NYC or contact me.



@devinbalkind on Twitter

devin@wegov.nyc

Airtable Training

optional

Let's Get Started

1. Log into your Email
2. Accept the Invitation
3. Create an Account
4. Click on the AirTable that you've been assigned

Devin Balkind via Airtab.

4:03 pm



Devin Balkind (devinbalkind@gmail.com) invited you to their workspace

Devin Balkind (devinbalkind@gmail.com) has invited you to collaborate



Devin Balkind (devinbalkind@gmail.com) has invited you to collaborate on their workspace **OR Training**.

[Accept invitation](#)

Airtable is a flexible and friendly way for you to collaborate on tasks, projects, ideas and more. It's like a spreadsheet, but much smarter. Get started in 10 seconds or less with one of our prebuilt templates.

Welcome and thanks!
The Airtable Team



Devin Balkind has invited you to **OR Training**.

Airtable is the friendly database that lets you organize anything you can imagine.

To get started, [sign in](#) or create an account.

First name Last name
My Name

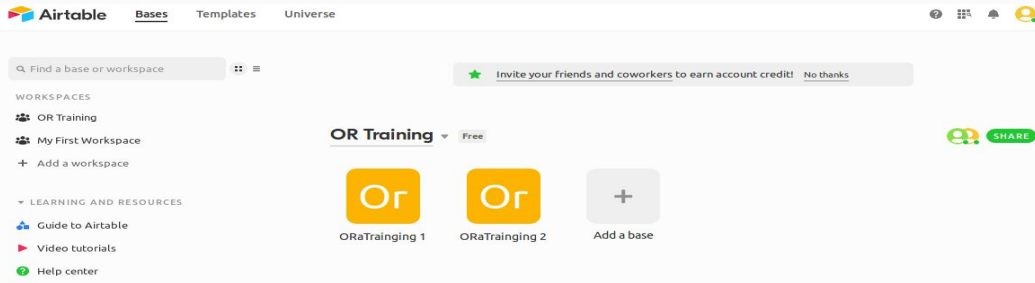
Email
myname@gmail.com

Create a password
[password field]

Sign up for free

Sign up with Google

By creating an account, you agree to the Terms of Service.



AirTable Resources

1. [Guide.airtable.com](https://guide.airtable.com)
2. [Airtable.com/templates](https://airtable.com/templates)

Nonprofit



Individual and Corporate ...

Organize your individual and corporate donations in one place.



Nonprofit Grant Tracker

Stay on top of your grant applications. Organize your foundation contacts, grant application statuses, and more.



Charitable Donations

Don't wait 'til tax day to get your nonprofit donations in order—keep track of receipts, contribution amounts and...

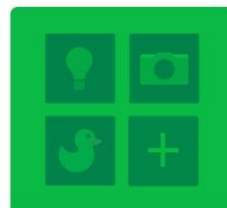


Nonprofit Gala

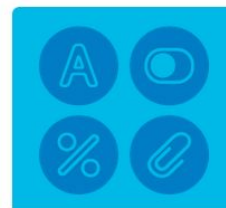
Venues, schedules, speakers—there's a lot that goes in to pulling off a successful event. This template will help keep...



Overview



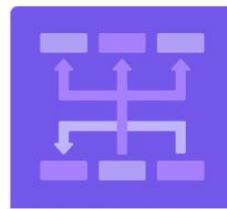
Creating A Database



Setting Up Field Types



Adding Records



Linking Between Tables



Collaborating With A Team



Filtering And Sorting



Publishing Views



Advanced Tips And Tricks

Basic Components














































1. Bases
2. Tables
3. Views
4. Fields
5. Records

The application interface for 'Travel Bucket List' displays a table of travel destinations with various filters and a summary row.

	Trip	Pictures	Priority	Flights	M...	Visited	
1	Brazil		3 - Very Intere...	\$885.00			
2	France		2 - Interested	\$1,450.00		✓	
3	Iceland		4 - Top Priority	\$1,336.00			
4	Mexico		2 - Interested	\$313.00			
5	New Zealand		3 - Very Intere...	\$1,119.00			
6	Vietnam		1 - Someday	\$1,508.00			
7	Zubrowka						
7 records							
				SUM	\$7,466.00		

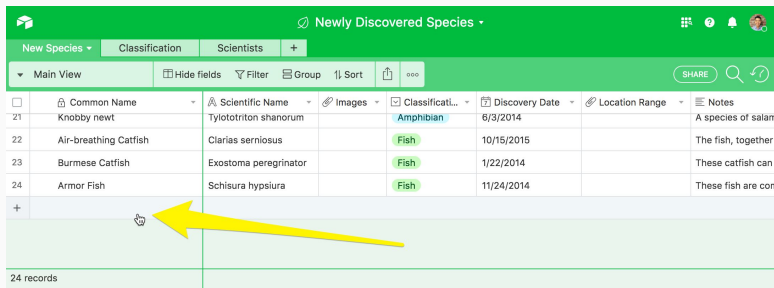
Field Types

1. Single line text
2. Long text
3. Attachment
4. Checkbox
5. Single select
6. Multiple option
7. Date and time
8. Phone number
9. Email
10. URL
11. Number
12. Currency
13. Autonumber
14. Formula

Mars Mission									
Tasks		Supplies		Astronaut Selection		Astronaut References		Launch Checklist	
Main View		Hide fields		Filter		Group		Sort	
Name		Image		Manuals		Completed Tests		Notes	
1	Inflatable dome habitat							Inflatable dome designed to support life	
2	Dome repair kit							Spare canvas with patch kits to repair ...	
3	Rover							Tank-sized vehicles capable of ...	
4	Potato plants							One of the primary goals of the mission i...	
5	Solar panels							... power to the h...	
6	Life support units							These are mobile life support units ...	
7	Space suits							Worn to keep a human alive in the harsh ...	
8	Backup space suits							Additional suits in case of malfunction o...	
9	Airlocks							Used for passage between environment...	
10	Lab tables							Research benches for varying ...	
11	Oxygenator							A device capable of exchanging oxygen ...	
12	Spare oxygen tanks							Storage vessels for oxygen, which is ...	
13	Water reclaimer							System for treating and removing solids ...	
14	Communication syste...							All first generation TDRs (F1-F7, also ...	
15	First aid kits							Specialized first aid kits for various ...	

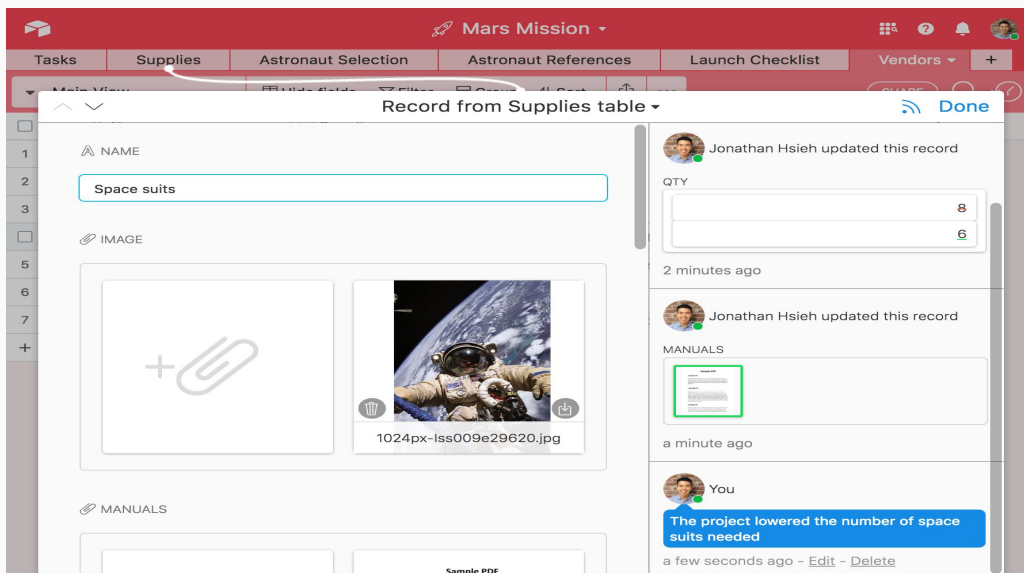
Working with Records

1. Create
2. Link
3. Edit
4. Expand
5. Export



The screenshot shows a table titled 'Newly Discovered Species' with columns: Common Name, Scientific Name, Images, Classification, Discovery Date, Location Range, and Notes. A yellow arrow points to a new record row at the bottom of the table.

	Common Name	Scientific Name	Images	Classification	Discovery Date	Location Range	Notes
21	Knobby newt	Typhlotriton shanorum		Amphibian	6/3/2014		A species of salam
22	Air-breathing Catfish	Clarias semiosus		Fish	10/15/2015		The fish, together
23	Burmese Catfish	Exostoma peregrinator		Fish	1/22/2014		These catfish can
24	Armor Fish	Schisura hypsiura		Fish	11/24/2014		These fish are com
+							



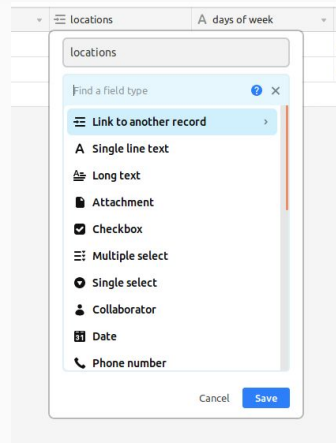
The screenshot shows a form titled 'Mars Mission' with tabs: Tasks, Supplies, Astronaut Selection, Astronaut References, Launch Checklist, and Vendors. A modal window titled 'Record from Supplies table' is open, showing a form with fields for Name, Image, and Manuals. The Name field contains 'Space suits'. The Image field shows a thumbnail of an astronaut in space. The Manuals field shows a thumbnail of a document.

Record from Supplies table

NAME: Space suits

IMAGE: 1024px-lss009e29620.jpg

MANUALS: Sample PDF



The screenshot shows a form titled 'locations' with a dropdown menu for field types. The dropdown menu is open, showing options: Link to another record, Single line text, Long text, Attachment, Checkbox, Multiple select, Single select, Collaborator, Date, and Phone number.

locations

Find a field type

Link to another record

Single line text

Long text

Attachment

Checkbox

Multiple select

Single select

Collaborator

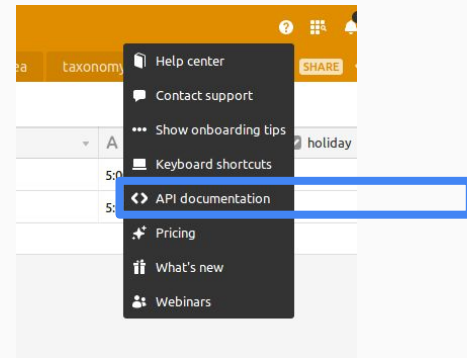
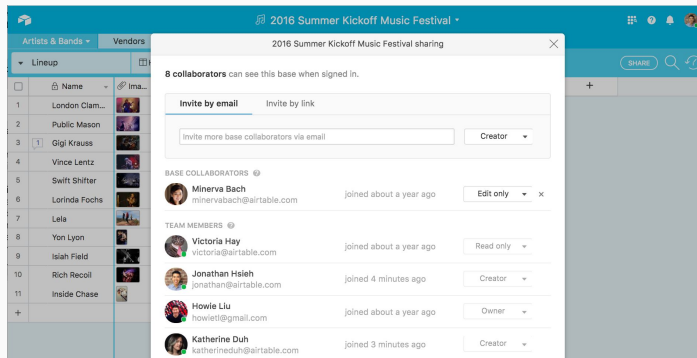
Date

Phone number

Cancel Save

Collaborating and Sharing

1. Sharing
2. Exporting
3. API



Newly Discovered Species						
New Species		Classification		Scientists		
Main View						
	Common Name	Scientific Name		Discovery Date	Location Range	
5	Knobby newt	Tylotriton shanorum		6/3/2014		
6	Air-breathing Catfish	Clarias serniosus		10/15/2015		
7	Burmese Catfish	Exostoma peregrinator		1/22/2014		
8	Armor Fish	Schisura hypsiura		11/24/2014		
9	Meyer's Gecko	Gekko thakhekensis	Reptile	3/24/2015		
10	Branch Lizard	Cnemaspis omari	Reptile	3/24/2015		
11	Red-toed Night Gecko	Cyrtodactylus vilapho...	Reptile	6/3/2014		
12	Hull plant	Chinographis actinom...	Plant	10/15/2015		
13	Eon Rose	Rohdea dracaenoides	Plant	1/22/2014		