

- How We Built and Grew A Dev Tool to Over 250K Developers Worldwide

Huy Nguyen

Bio



- **Work:**
 - Co-founder & CTO, Holistics Data
 - Co-founder, Grokking Vietnam
- **Hobbies:** Football, Table Tennis, Chinese Chess
- **Achievement:** Score of 281 on Flappy Bird

This talk is designed for

Developers / technical founders
who want to **build your own software**
and grow userbase.



What we'll cover in this talk

- **Product Development:** How we built the product
- **Go to Market:** How we launch and grow userbase organically to over 250K users
- **What's Next:** An ecosystem of products



About dbdiagram

- [dbdiagram.io](#)
 - Database diagram design tool
 - Built by 2 interns in Holistics
 - 20K visits, 2K Regs in 2 months
 - 250K+ registrations so far
 - 70K MAUs
 - Most are developers

Filters No filters + Add

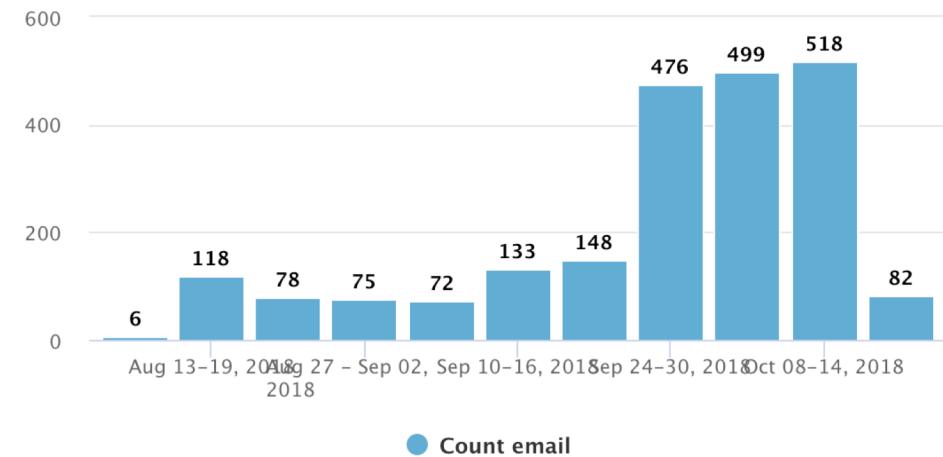
Total Registered Users (Emails)

2.21K
Total_Email

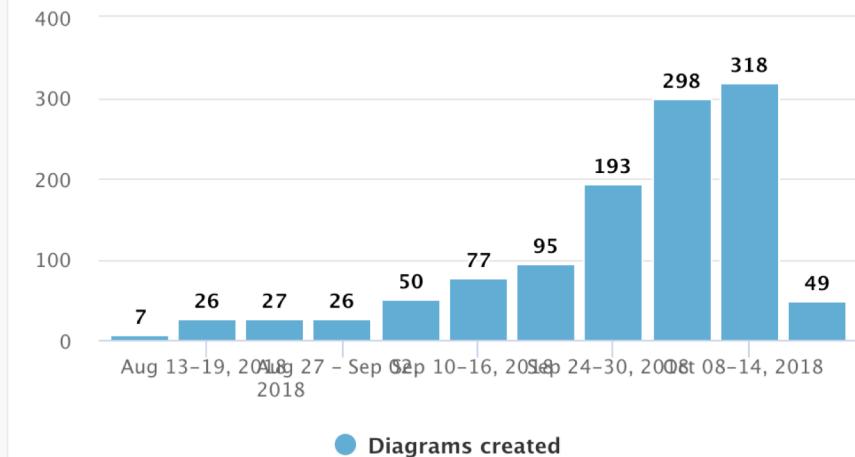
Total Diagrams

3.19K
Diagrams_Createad

Registered Users



Total Diagrams



Emails Collected

	updated_at	email
1	2018-10-15 22:26:42	david.alvarez@katana.media
2	2018-10-15 21:32:39	dguevarabalcazar@gmail.com
3	2018-10-15 20:56:20	vivektalreja88@gmail.com
4	2018-10-15 20:42:48	paul@leancog.com
5	2018-10-15 20:16:03	manuel.neri979@gmail.com
6	2018-10-15 20:01:40	julianogarcia1997@gmail.com
7	2018-10-15 19:23:45	kousaldominik@gmail.com

Diagram Names

	Datetrunc Day createdAt	name
1	Oct 02, 2018	1
2	Oct 14, 2018	1
3	Sep 05, 2018	T
4	Sep 07, 2018	T
5	Oct 07, 2018	Y
6	Oct 07, 2018	Y
7	Oct 07, 2018	Y

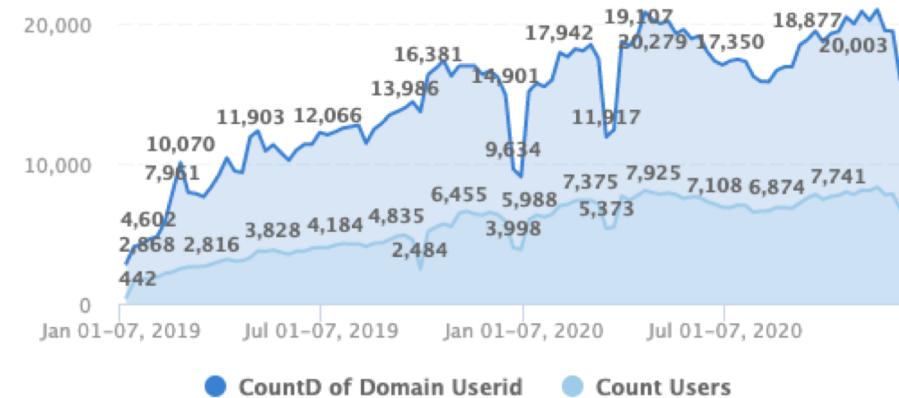
▶ Filters Date any time

Total Registered User... ⓘ

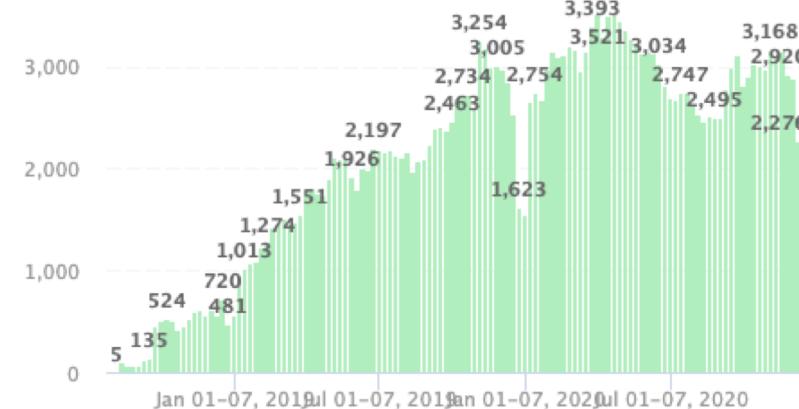
 260.98K
Total Users

Total Diagrams Created

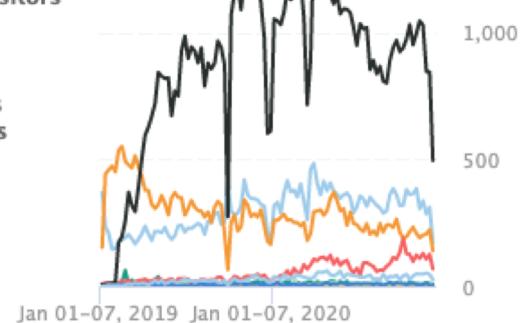
 481.86K
Total Diagrams

Weekly Active Users

Daily registration - Last 3 weeks ⌂

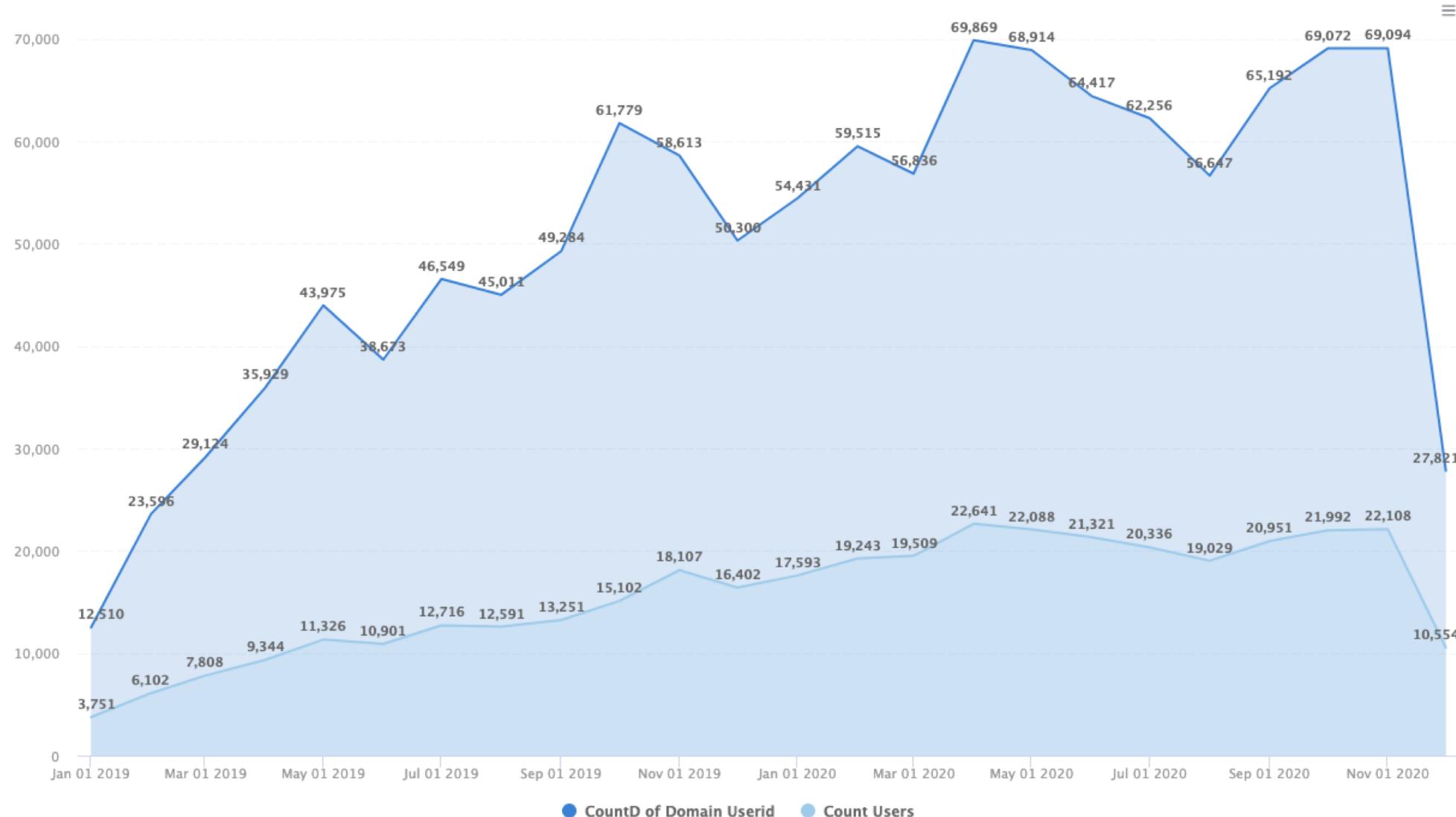
Registered Users (moving average)

Weekly registration

Visitors by acquisition channel ⌂

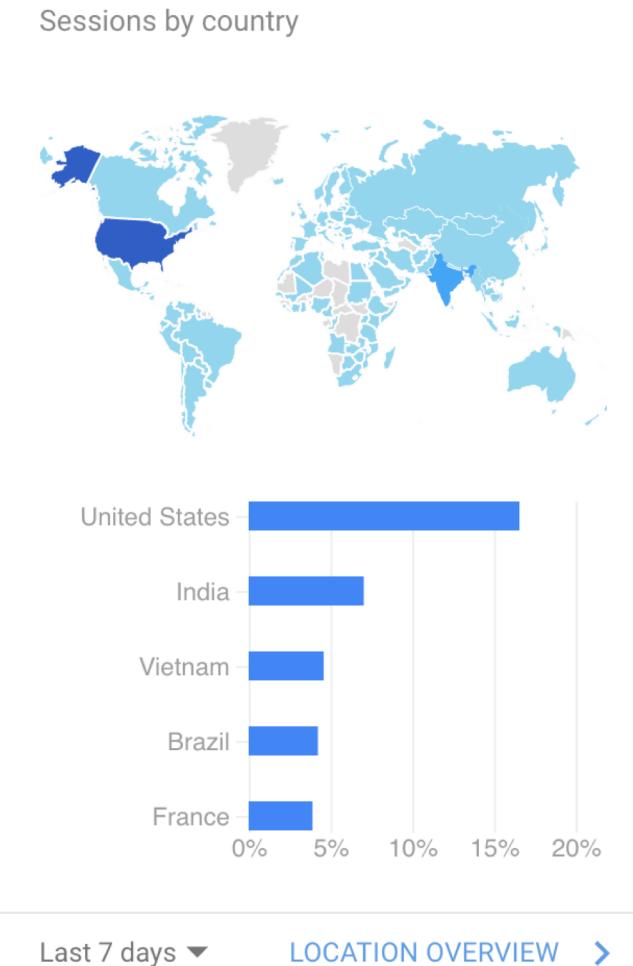
- Collaboration apps Count Visitors
- Direct Count Visitors
- Facebook Count Visitors
- Github Count Visitors
- Holistics Blog Count Visitors
- Message apps Count Visitors
- Others Count Visitors
- Search Count Visitors
- Twitter Count Visitors
- User blog Count Visitors



MAU: 70,000K – \$0 Marketing Budget



Used by users around the world



		156,091 % of Total: 100.00% (156,091)
1.	United States	26,204 (16.43%)
2.	India	10,157 (6.37%)
3.	United Kingdom	6,251 (3.92%)
4.	Vietnam	6,234 (3.91%)
5.	Brazil	5,978 (3.75%)
6.	France	5,397 (3.38%)
7.	Germany	5,169 (3.24%)
8.	Thailand	4,346 (2.72%)
9.	Indonesia	3,851 (2.41%)
10.	Canada	3,785 (2.37%)

Dominating Google SERP on "database diagram"

database diagram



All

Images

Videos

News

More

Settings

Tools

About 750,000,000 results (0.51 seconds)

Top 5 Free Database Diagram Design Tools - Holistics

<https://www.holistics.io/blog/top-5-free-database-diagram-design-tools/> ▾

Aug 12, 2018 - Determine the right tool for you to design **database schema** diagrams, we've curated a list of 5 of the best free online database designer to do it.

dbdiagram.io - Database Relationship Diagrams Design Tool

<https://dbdiagram.io/home> ▾

Oct 7, 2018 - DBDiagram: A Relational **Database Diagram** Design Tool - <https://t.co/xW32hEkZQv>
(Quick and simple tool to help draw database relationship ...)

What is an Entity Relationship Diagram - Lucidchart

<https://www.lucidchart.com/pages/er-diagrams> ▾

An **Entity Relationship (ER) Diagram** is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system.

Database Structure and Design Tutorial | Lucidchart

<https://www.lucidchart.com/pages/database-diagram/database-design> ▾

I'm new to **Database diagrams** and want to learn more.I want to make my own **Database diagram** in Lucidchart.I want to make a **Database diagram** from a ...

How to create ER diagram for existing database with SSMS - Dataedo

<https://dataedo.com/t-sql/ssms-create-er-diagram-existing-database>

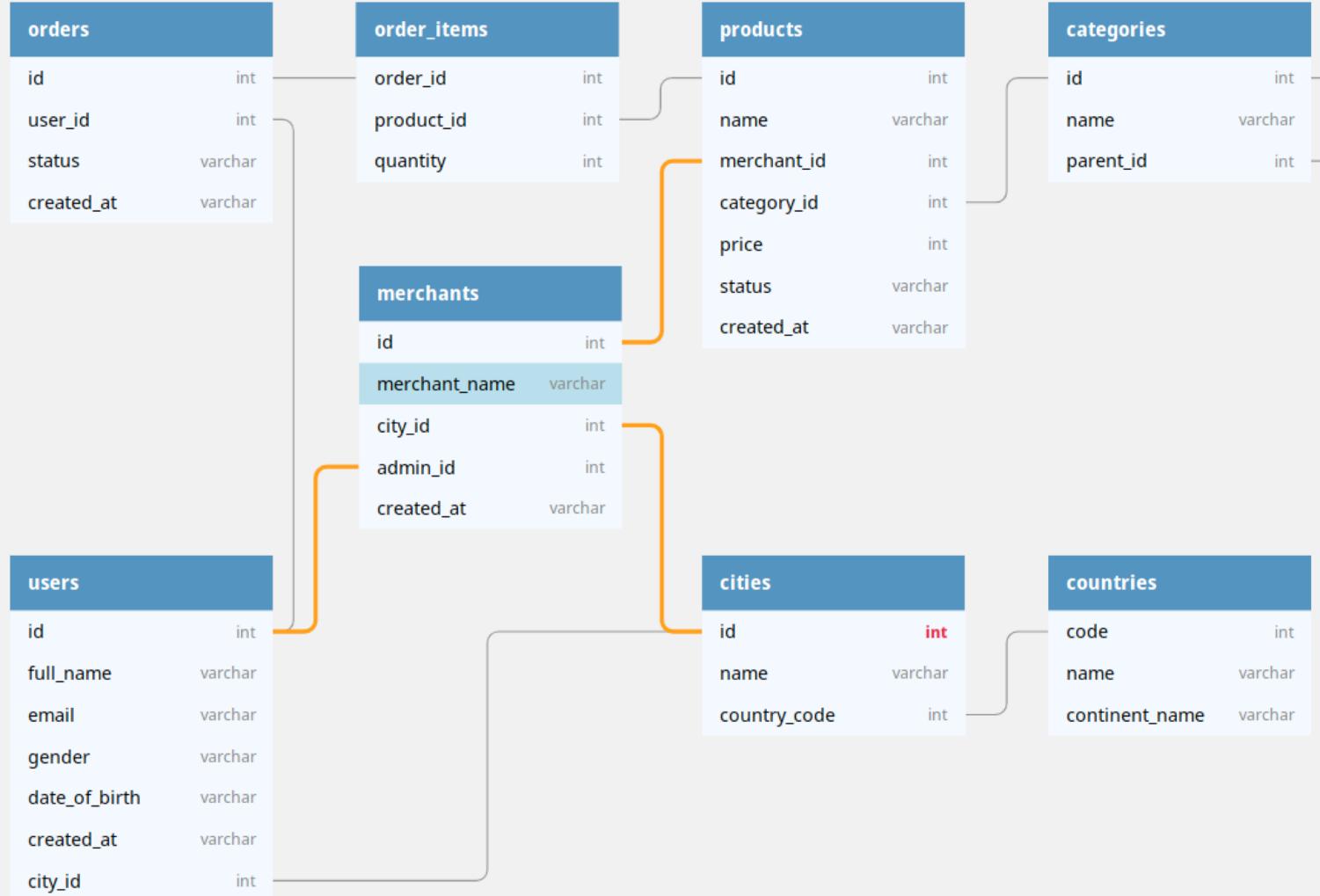
How We Build(t) It



How It Started

- Holistics is too complex for any intern
- Started as a Feature – Holistics Data Relationships Visualizer
- There was internal needs from Data Engineers / Data Analysts for such a tool; There is no such good-enough tool in the market
- MVP was developed by **2 Dev Interns** in 3 weeks





Focus

Reset

Save

Load



Designing the language to describe database

- Initially designed with the internal Holistics users in mind
- Went with a DSL approach
- DSL designed to be:
 - Simple & consistent
 - Highly readable
 - Easy to learn (*resemble current SQL DDL*)

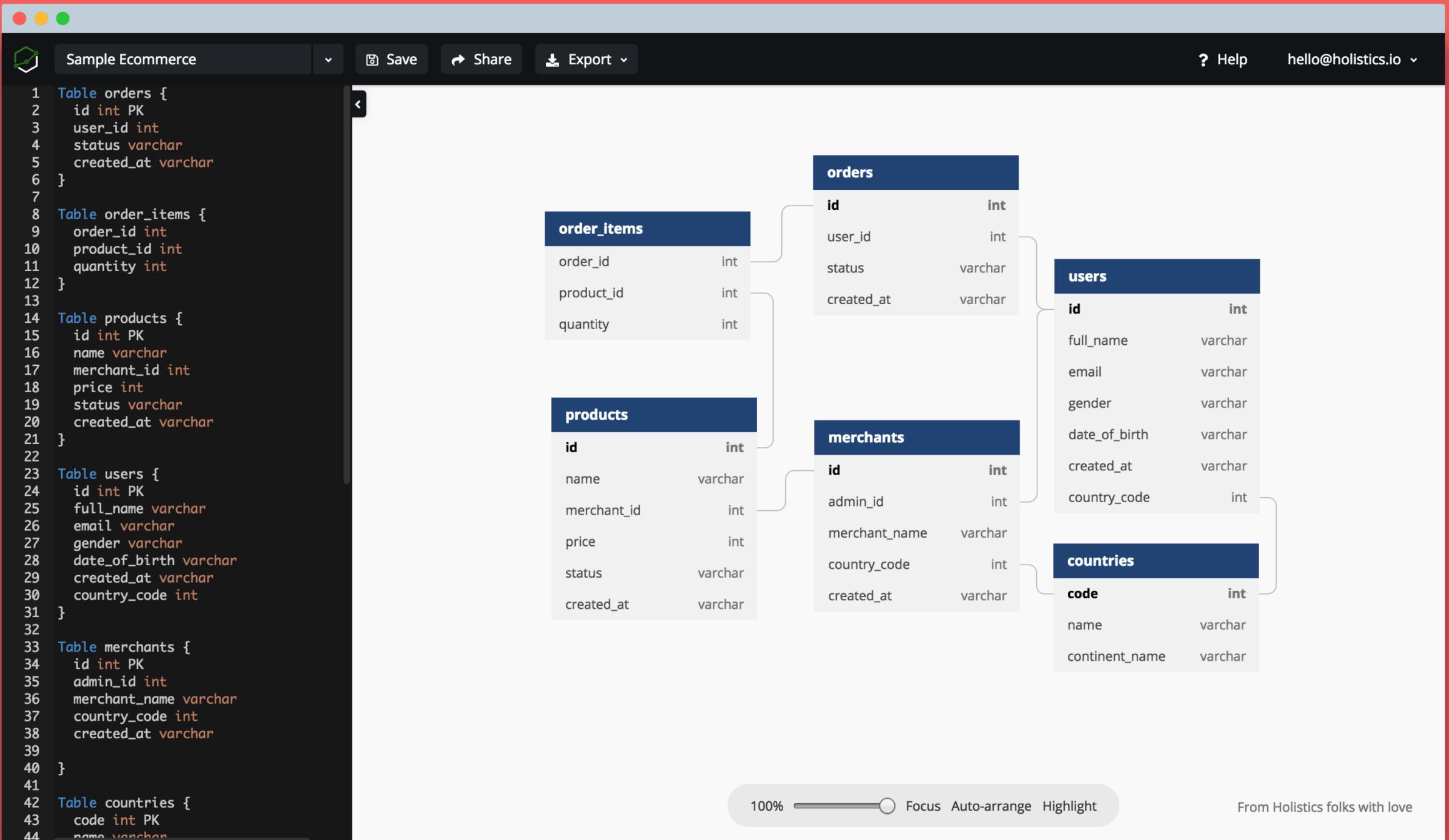
```
Table users as U {
    id varchar [pk, increment]
    full_name varchar
    created_at timestamp
    country_code int

    note: "table 'users' contains user information"
}

Table merchants {
    id int [pk]
    merchant_name varchar
    country_code int [note: "country of merchant"]
    admin_id int [ref: > U.id]
    created_at datetime [default: `now()`, note: "created time"]

    note: "table 'merchants' contains merchant information"
}

Table countries {
    code int [pk]
    name varchar
    continent_name varchar
}
```





Project's Expectation

- **Initial Expectation:** Experimental side-project
- **Objectives:**
 - Brand Awareness
 - Get Leads for Holistics (Data Analyst, Data Engineer)
 - Inspiration for team
 - Experiment/Practice (without risk)
- **Value Prop to Users (Data Community)**
 - Visualize/Design Database
 - Free Tool



Building the Product

- Target Audience & Value Prop
- Product Naming
- Delivering Value First
- Getting Feedback Ruthlessly



1-line Pitch (Press Release)

“dbdiagram.io is a quick and simple tool to help you draw your database relationship diagrams and flow by using just keyboard”



Target Audience



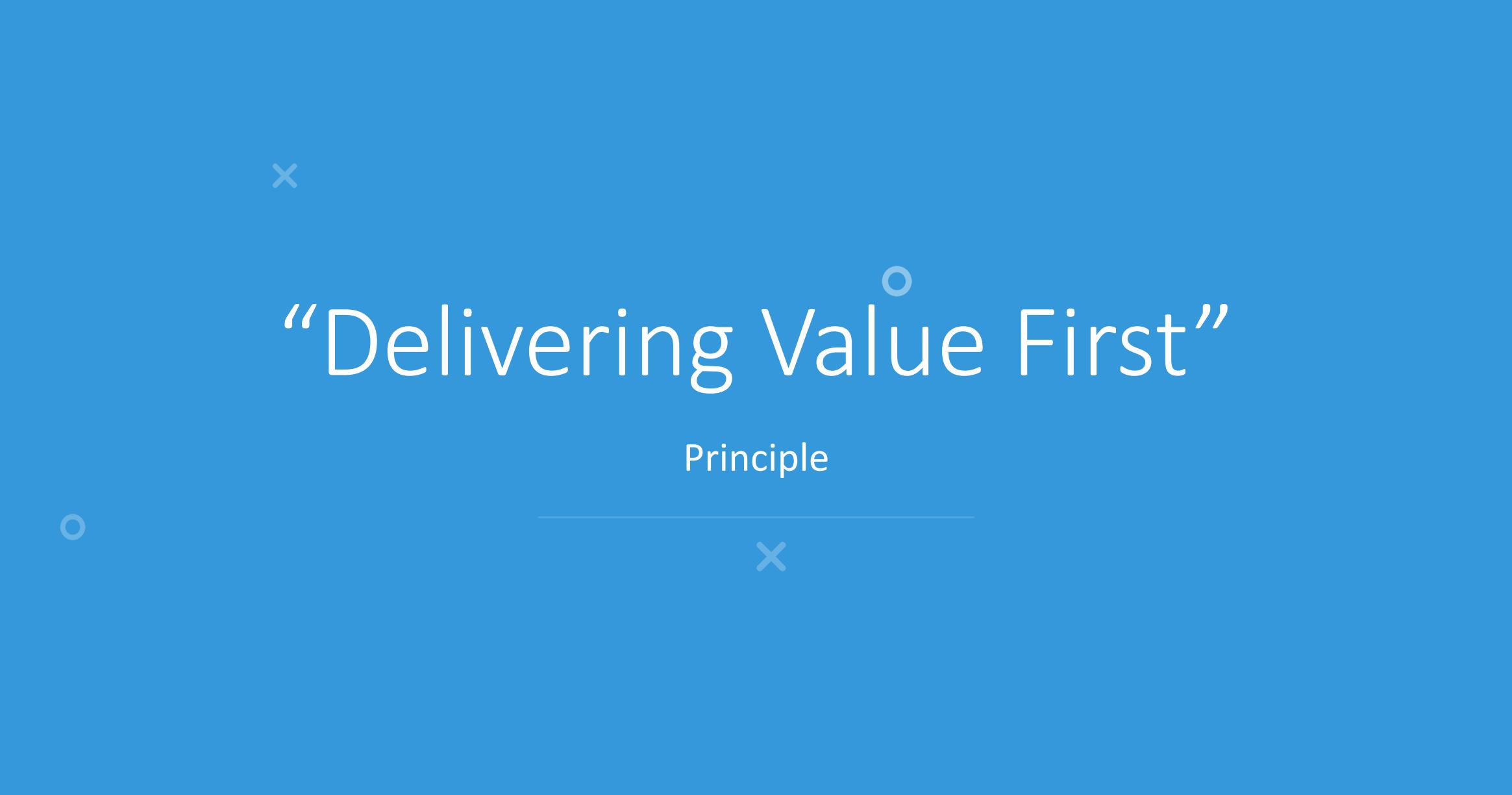
- **Initial Targets (from solving internal problems)**
 - BI/Data Analysts
 - Data Engineers
- **Extra Targets**
 - Business Analysts/Consultants
 - Students/Teachers
- **JTBD:**
 - When I present to my customers about new software or a database structure, I want to have a database diagram quickly, so my customers can easily understand the whole idea.

Naming the Product

- Side project → Don't have much resources in promoting → Name should be simple and self-explanatory
- SEO Research (serpstats.com + Google)
 - *Database Diagram*
 - *Database Diagram tool*
 - *Database Designer*
 - *Database Schema*
 - ...

👉 dbdiagram.io

Keywords	Keyword difficulty	CPC	Competition	Search Volume
database diagram	9.69	2.94	11%	880
database diagram tool	27	10.79	51%	320
database relationships diagram tools	3	0	74%	90
visualize database schema	1	0	41%	90
mysql database visualizer	1	17.68	80%	90
visualize schemas	3			
database schema	13.2	4.4	2	4400
database schema diagram	8.38	1.42	17	140
schema diagram	0	0	0	140
database schema diagram tool				40
database schema diagram	9	10	23	320
database schema design tool	8	9.8	44	210
erd tool	10.68	2.48	28	1600
erd diagram tool		3.89	24	320
Free and diagram tool				



“Delivering Value First”

Principle

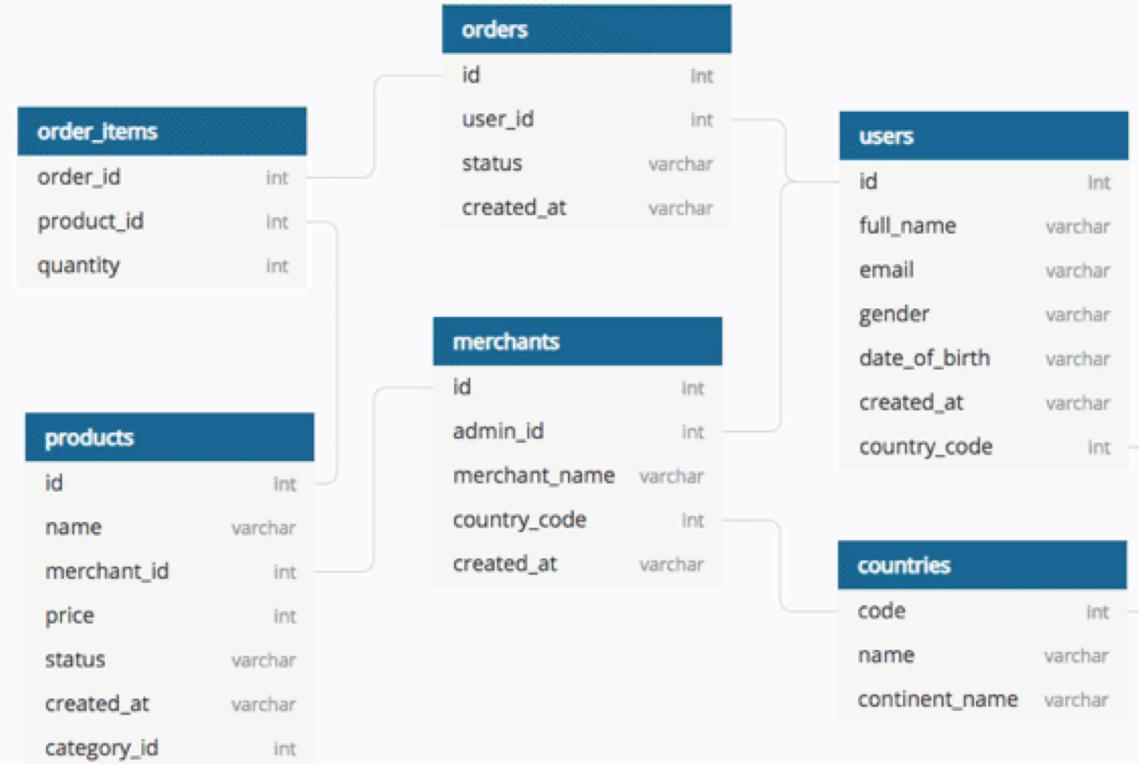
Shortest Time-to-Value



- ~~Registration required~~
- ~~Landing Page~~
- **Show-don't-tell:** Start drawing diagram immediately
- Developers don't like marketing BS



```
32  
33  
34 Table merchants {  
35   id int PK  
36   admin_id int  
37   merchant_name varchar  
38   country_code int  
39   created_at varchar  
40 }  
41  
42 Table countries {  
43   code int PK  
44   name varchar  
45   continent_name varchar  
46 }  
47  
48 Ref {  
49   orders.user_id > users.id  
50 }  
51 Ref {  
52   order_items.order_id > orders.id  
53 }  
54  
55 Ref {  
56   order_items.product_id > products.id  
57 }  
58  
59 Ref {  
60   products.merchant_id > merchants.id  
61 }  
62  
63  
64 Ref {  
65   users.country_code > countries.code  
66 }  
67  
68 Ref {  
69   merchants.admin_id > users.id  
70 }  
71  
72 Ref {  
73   merchants.country_code > countries.code  
74 }  
75  
76
```



Feedback System

- Simple Google Form
- Zapier to Slack
- Zapier to Team Mailbox
- Zapier to Asana
- Twitter to Slack

The screenshot shows a Slack workspace interface. At the top right are close and minimize buttons. The main area displays two messages:

Holistics APP 8:30 AM
Total Registered Users (Emails)
[Open Report](#)
Total_Email: 1839 (8 kB) ▾
2.12K
Total_Email

Zapier APP 9:55 AM
New Feedback from [REDACTED]
Feedback: Importing an sql file sometimes does not work (depends on the syntax in the sql file). Would be nice to have a feature to describe column names (like documentation).
Rating: 9. Why: DSL is simple to use. E/R diagrams are a bit messy to maintain. The import and export makes it really nice to work with.
 2 replies Last reply 6 days ago



Zapier APP 8:05 PM

New Feedback from [REDACTED] (title: Developers)

Feedback: I have published a couple of scripts which script out sql server tables for inclusion in a diagram. Feel free to share.

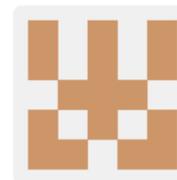
<https://github.com/SQLSith/SQL-General-Scripts/tree/master/Documenting%20Databases/dbdiagram.io>

Rating: 10. Why: I've found it very useful for creating diagrams as part of database documentation.



[SQLSith/SQL-General-Scripts](#)

Useful SQL Server scripts that I have written over the years - SQLSith/SQL-General-Scripts



Zapier APP 10:55 PM

New Feedback from [REDACTED] (title: Data Analysts)

Feedback: It would be really helpful to be able to select multiple tables at once for moving them around on the page. For the one I was working on, I had 30+ tables, so it would be great to have been able to multi-select tables when moving. Also the ability to align the tables would be great for visual purposes, it's a little hard to line things up perfectly (and when you're a perfectionist like myself, it's hard pill to swallow when it can't be perfectly aligned!). But this tool has literally been a lifesaver!

Rating: 10. Why: This tool saved me hours from creating a data model in MS Visio!



Zapier APP 1:27 PM

New Feedback from [REDACTED] (title: Developers)

Feedback:

Rating: 10. Why: Is an awesome tool that I always like to use for quick database sketches at brainstormings



Zapier APP 5:22 PM

New Feedback from [REDACTED] (title: Developers)

Feedback: looking for a feature to change the table header colour

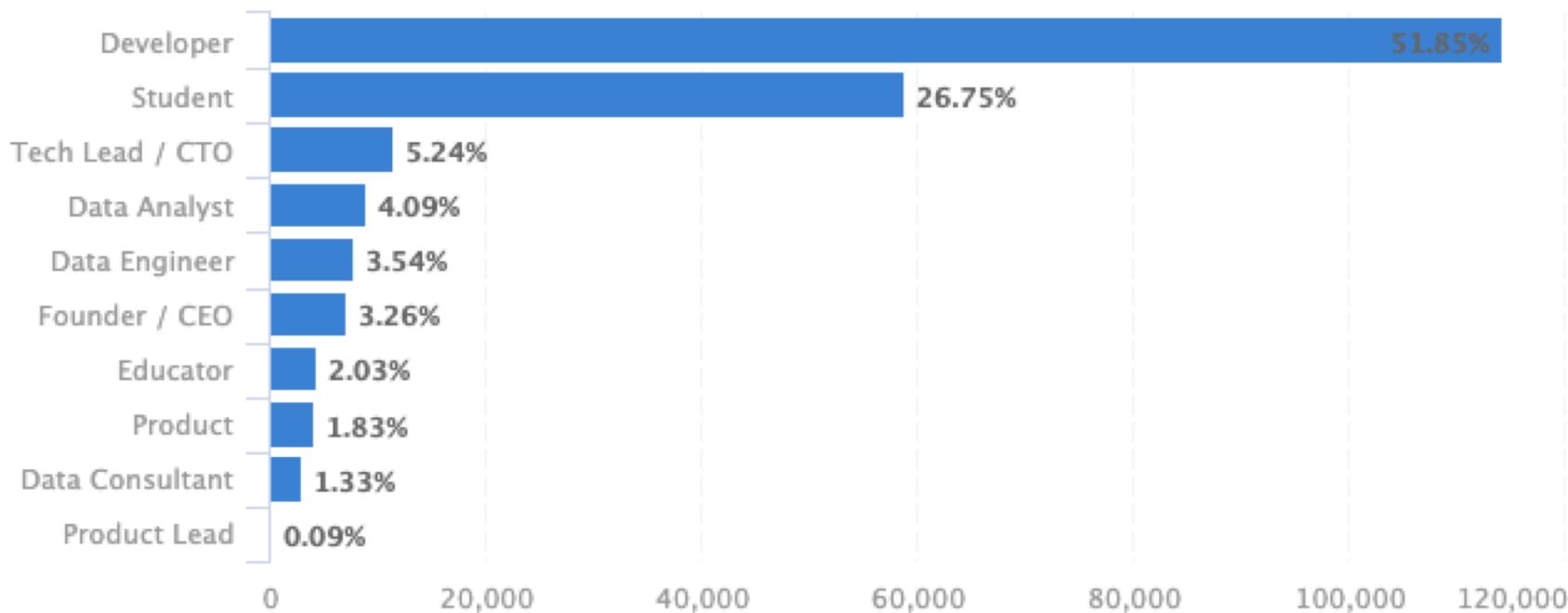
Rating: 10. Why: you saved my day

New Feedback from [REDACTED] (title: Developers)

Feedback: Support postgresql enum types
Rating: 8. Why: ease of use

Realization of Target Market

User Job Roles



Launch & Channels



X

O

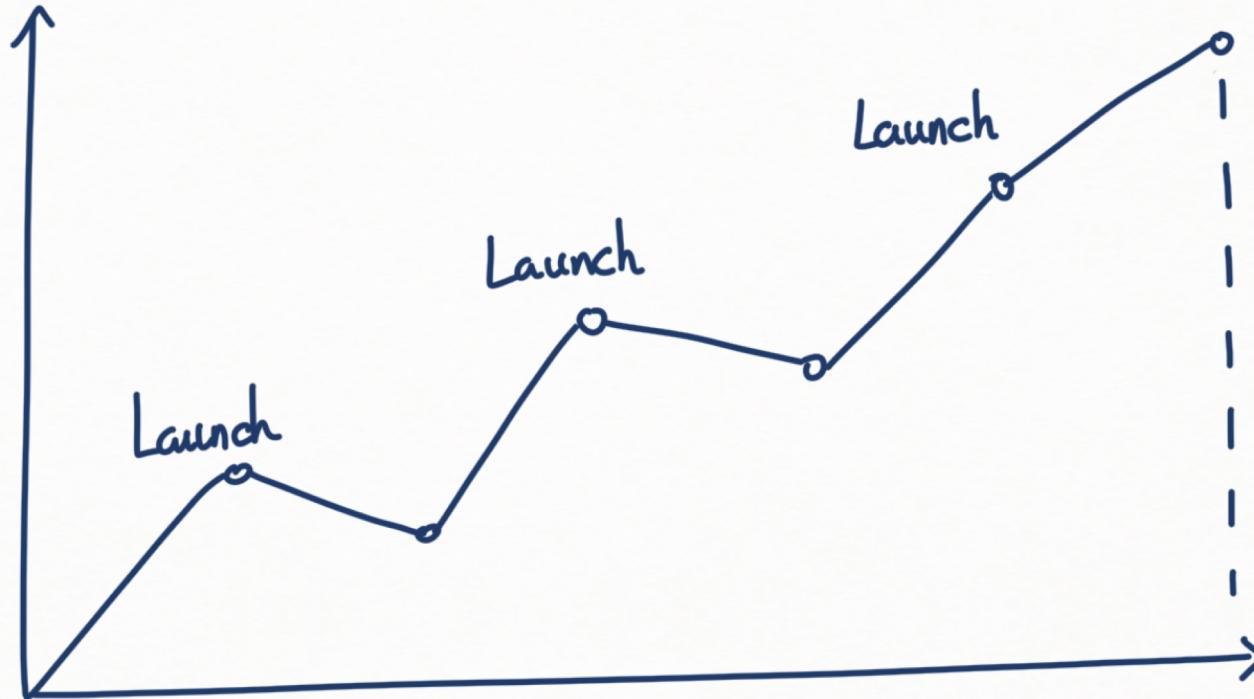
Philosophy

ONE DOES NOT SIMPLY

LAUNCH ONCE



Mini-launches

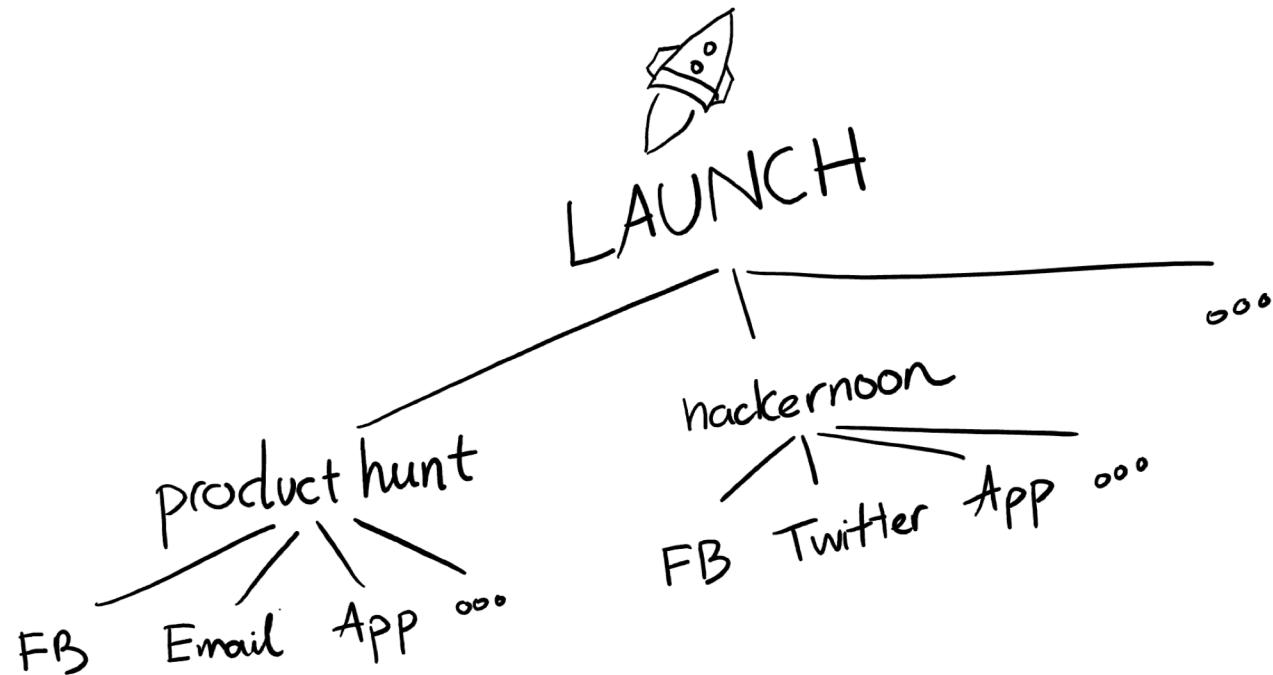




Pre-Launch: Writing Things Down

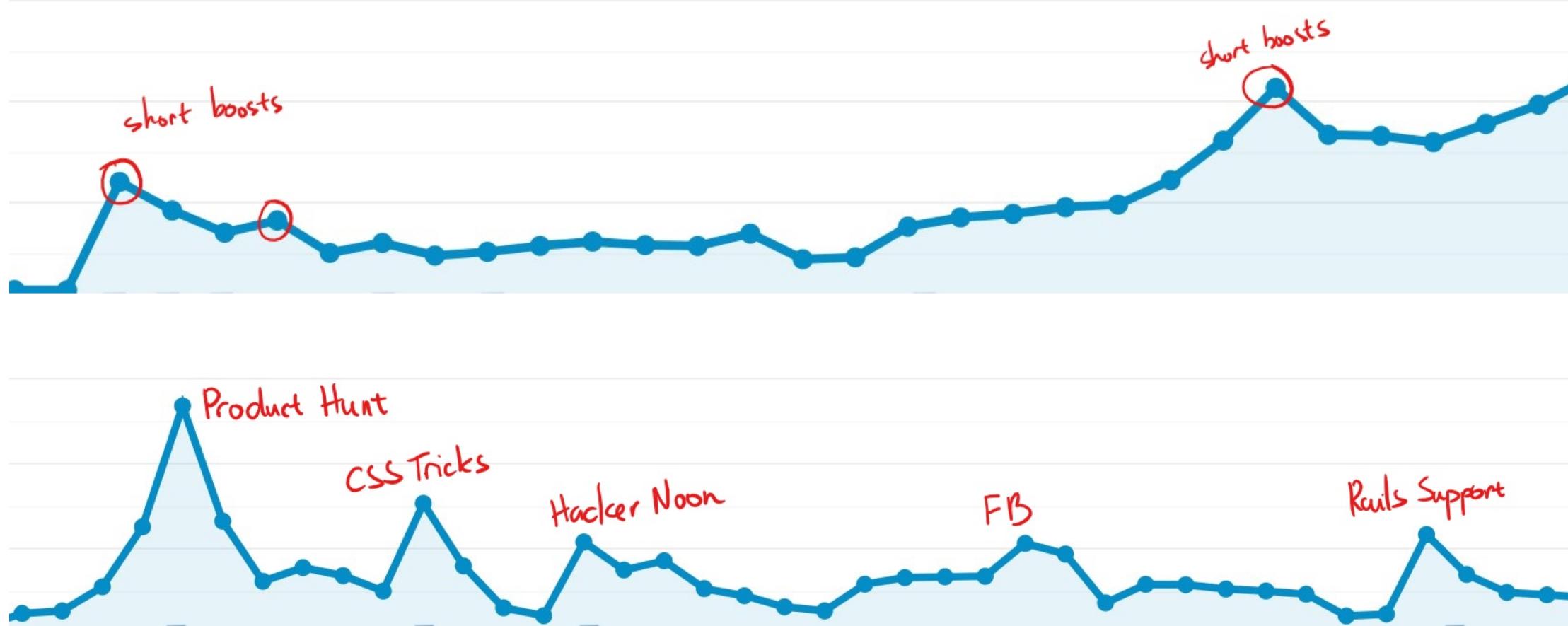
- Simply **write down** a checklist of all possible places your **target audience** would visit
- Marketing Content Kit
- The Target Audience
- Clear Message
- Measures
- Tactics
- Strategy
- ...

Launch Plan & Channels



- **Social:** Reddit, Quora, Facebook, Twitter, ...
- Hacker News
- Product Hunt
- **Blogs:** Hacker Noon, Towards Data Science
- Content Marketing (SEO)
- Engineering Growth Hacks

Results: Multiple mini short-boots



Facebook –Personal Sharing + Groups (2K visitors)

Huy Nguyen is with Nguyễn Nhật Tài and Do Anh Thong.
13 August at 21:24 ·

Holistics' little side project: Designing database diagrams using code. If you're working a lot with databases, check them out!

Side project của Holistics: thiết kế database diagrams bằng code. Bạn nào là dev hoặc làm data vào chạy test thử giúp team nha.

The screenshot shows a database diagram for a simple e-commerce system with entities: orders, order_items, products, merchants, users, and countries. Below the diagram is the generated SQL code:

```
1 Table orders {
2   id int PK
3   user_id int
4   status varchar
5   created_at varchar
6 }
7
8 Table order_items {
9   order_id int
10  product_id int
11  quantity int
12 }
13
14 Table products {
15   id int PK
16   merchant_id int
17   name varchar
18   price int
19   status varchar
20   created_at varchar
21 }
22
23 Table users {
24   id int PK
25   merchant_id int
26   email varchar
27   gender varchar
28   date_of_birth varchar
29   country_code int
30   status varchar
31 }
32
33 Table merchants {
34   id int PK
35   merchant_name varchar
36   admin_id int
37   country_code int
38   created_at varchar
39 }
```

DBDIAGRAM.IO
[dbdiagram.io - Database Relationship Diagrams Design Tool](#)
Quick and simple free tool to help you draw your database relationship...

16 Comments 8 Shares

Love Comment Share

View 5 more comments

Lê Đức Huy Ngon! Bữa thấy khảo sát hóa ra thăm dò. Ngon x69 lần các tool vẽ khác :))
Like · Reply · 1w

Hai Nam Bui Wow. Fantastic works! Love it so much Huy and Holistics team!
Like · Reply · 1w

Nguyễn Tùng tool hay 😊 Thí chủ cho xin nốt cái tính năng export

Tuấn's post

Follow tui để nhận thông báo khi có bài viết mới ;)
(fb.com/100003880469096)

#j2team_share #j2team_tool #j2team_webdev — at J2TEAM

The screenshot shows a database diagram for a similar e-commerce system. The entities are: orders, order_items, products, merchants, users, and countries. Below the diagram is the generated SQL code, which is identical to the one in the first post.

```
1 Table orders {
2   id int PK
3   user_id int
4   status varchar
5   created_at varchar
6 }
7
8 Table order_items {
9   order_id int
10  product_id int
11  quantity int
12 }
13
14 Table products {
15   id int PK
16   merchant_id int
17   name varchar
18   price int
19   status varchar
20   created_at VARCHAR
21 }
22
23 Table users {
24   id int PK
25   full_name varchar
26   email varchar
27   gender varchar
28   date_of_birth varchar
29   country_code int
30   status varchar
31 }
32
33 Table merchants {
34   id int PK
35   merchant_name varchar
36   admin_id int
37   country_code int
38   created_at varchar
39 }
```

100% Focus Highlight

Like Comment Share

Vincent Woon shared a video.
14 August at 15:48 ·

We spoke with hundreds of analysts over the past 3 years. Database diagrams are important to understand how your data is structured, be it for a new data analyst or power data business users.

And the one common issue they face (which our team faced too) is how difficult it is to draw database diagrams.

The problem with existing tools is that they were designed to draw mockups, and gets unnecessarily tedious.... See more

The screenshot shows a database diagram for the same e-commerce system. The entities are: orders, order_items, products, merchants, users, and countries. Below the diagram is the generated SQL code, which is identical to the ones in the previous posts.

```
1 Table orders {
2   id int PK
3   user_id int
4   status varchar
5   created_at varchar
6 }
7
8 Table order_items {
9   order_id int
10  product_id int
11  quantity int
12 }
13
14 Table products {
15   id int PK
16   merchant_id int
17   name varchar
18   price int
19   status varchar
20   created_at VARCHAR
21 }
22
23 Table users {
24   id int PK
25   full_name varchar
26   email varchar
27   gender varchar
28   date_of_birth varchar
29   country_code int
30   status varchar
31 }
32
33 Table merchants {
34   id int PK
35   merchant_name varchar
36   admin_id int
37   country_code int
38   created_at varchar
39 }
40
41 Ref { order_items.order_id > orders.id
42 }
43 Ref { order_items.product_id > products.id
44 }
```

WWW.HOLISTICS.IO
[Tool to Design Database Diagrams Quickly - dbdiagram.io](#)
Learn More

1,864 Views
Holistics
14 August at 13:39 ·

If you work with databases a lot, you can check out our little side project we just launched. It allows you to write code to define tables and relationships, and... See more

Like Comment Share

Hacker Noon – Top #5 Medium Publication – 3K



Date ↑

Views

Reads

Read ratio

Fans

A Database Diagram Designer Built for Developers a...

3 min read · In Hacker Noon · View story · Details

5.5K +687

1.97K

35%

33

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This is the leaderboard of top publications on Medium ranked by the total number of followers they've acquired. View our ranking of the [fastest growing publications on Medium](#).

Share On Facebook Twitter LinkedIn Google+

Rank	Publication	Category	Subscribers
1	 The Mission We publish stories, videos, and podcasts to make smart people smarter. Subscribe to our newsletter to get them! www.TheMission.co	Tech	455,857
	455,857 Subscribers · 266 Requests · Growing by 306.1 Followers Per Day · On Track to Have 465,040 Followers Next Month · On Track to Have 483,406 Followers In Three Months · Embed		Contribute
2	 The Economist Insight and opinion on international news, politics, business, finance, science, technology, books and arts	Politics	376,948
	376,948 Subscribers		
3	 freeCodeCamp Our community publishes stories worth reading on development, design, and data science.	Technology	359,967
	359,967 Subscribers		
4	 Startup Grind The life, work, and tactics of entrepreneurs around the world - by founders, for founders. Welcoming submissions on technology trends, product design, growth strategies, and venture investing.	Entrepreneurship	346,359
	346,359 Subscribers · 679 Requests · Growing by 118.8 Followers Per Day · On Track to Have 349,923 Followers Next Month · On Track to Have 357,051 Followers In Three Months · Embed		Contribute
5	 Hacker Noon how hackers start their afternoons.	Hackathons	326,753
	326,753 Subscribers · 512 Requests · Embed		Contribute



The screenshot shows the Hacker Noon website's header with the Medium logo, the Hacker Noon logo, and a "Writer" dropdown. Below the header is a navigation bar with links: HOME, READ LATEST, BLOCKCHAIN, DEV, AI, DATA SCIENCE, CRYPTO, STARTUP, and HACKER JOBS. The main content area features a post by Anthony Thong Do with a profile picture, a bio, and a timestamp of Oct 8 · 4 min read. The background of the page is green.

Applause from Evan Tan, Nguyen Manh Truong, and 31 others



Anthony Thong Do

Entrepreneur, Product Manager, Product Designer | holistics.io, gannha.com | 200% on Products
Oct 8 · 4 min read

A Database Diagram Designer Built for Developers and Analysts

Starting as a feature developed by our interns to help our customers visualize their database schemas at [holistics.io](#)—Business Intelligence Platform, we found out the opportunity to release [dbdiagram.io](#) as a standalone tool to contribute to data community.

That's how [dbdiagram.io](#) built, a quick and simple database designer which is optimized for data analysts and developers to help them design database diagrams by just using their keyboard.

Reddit + Quora + Hacker News + Slack ...



Free Database Diagrams Designer for developers and analysts (dbdiagram.io)

submitted 20 days ago by [anhthong00](#) to [r/programmingtools](#)
14 comments share save hide delete nsfw spoiler crosspost

Netnameus • 2 points • submitted 20 days ago
This is awesome. Would love to be able to import a .sql file to be processed!

anhthong00 • 1 point • submitted 20 days ago
Glad you like it, we are working on import feature for postgresql, what database you are using?

Netnameus • 1 point • submitted 19 days ago
MySQL

anhthong00 • 1 point • submitted 19 days ago
Oh nice, we will be working on this next

[Load more comments](#)

Tool to visualize database schema using code for developers and analysts (dbdiagram.io)

submitted 20 days ago by [anhthong00](#) to [r/webdev](#)
5 comments share save hide delete nsfw spoiler crosspost

btreechat • 1 point • submitted 20 days ago
What database? What Language? What Framework/library?

anhthong00 • 1 point • submitted 20 days ago
@FishMcCray is right, it's for relational databases. We are using DSL (Domain Specific Language) which is custom language.
It can be mapped and exported to any SQL language

TheRealNetroxen • 2 points • submitted 20 days ago
This is very useful for my school work, thank you!

anhthong00 • 2 points • submitted 20 days ago
Thanks, I'm glad to hear that, feel free to give us your feedback when using!

[news.ycombinator.com/item?id=18324132](#)

Hacker News new | threads | past | comments | ask | show | jobs | submit

huy (503) | logou

* Show HN: Visualize Your Rails App to ER Diagram Automatically (holistics.io)
104 points by huy on Oct 29, 2018 | hide | past | favorite | 32 comments

jaggederest on Oct 29, 2018 [4 more]

SOLAR_FIELDS on Oct 29, 2018 [1 more]

Exuma on Oct 29, 2018 [2 more]

tabtab on Oct 29, 2018 [5 more]

sam0x17 on Oct 29, 2018 [6 more]

badtuple on Oct 29, 2018 [-]
This is really nice!
To those trying it out: if the diagram seems inaccurate, try dragging tables around.
I uploaded a very simple schema, but seemingly unrelated tables looked connected. Turns out it's 100% accurate, but relationships can run behind other tables and make it look like things are connected that aren't. Detangling is easy with a few drags/drops and you get a really nice diagram out of it.

SOLAR_FIELDS on Oct 30, 2018 [-]
This comment is precisely why I have a ton of respect for the people who develop visualization algorithms like in Graphviz. Given a DAG or ERD, the logic to properly render that as something that makes sense to your typical developer is HARD. Mad props to the people who tackle that problem.

Product Hunt – 6K Users

dbdiagram.io

Free database diagrams designer for analysts & developers

TECH DEVELOPER TOOLS + 2

dbdiagram.io - Free Tool to Design Database Diagrams

order_items

orders

products

Ref {
order_items.order_id > orders.id
}
Ref {
order_items.product_id > products.id
}

0:00 / 0:14

Focus Highlight

From Hollistics folks with love

HD

+

▲ UPVOTED 523

Website dbdiagram.io

SEND TO PHONE

SOCIAL

Rapid - Real-time Database ...

Build real-time apps without maintaining the infrastructure

Twitter went Semi-viral

 CSS-Tricks @css · Oct 4
Need to sketch out a database model? [dbdiagram.io](#)

2 65 246

 Tom Miller @tmllr · Oct 11
A Database Diagram Designer Built for Developers and Analysts [tmllr.us/5xq](#) via [@hackernoon](#) #measure #dbdiagram.io <- THIS IS AWESOME. Would love to connect with the creators - I'm in SGP.

1 10 16

 Database Daily @DatabaseDaily · Oct 1
DBDiagram: A Relational Database Diagram Design Tool - [dbdiagram.io](#) (Quick and simple tool to help draw database relationship diagrams using a simple DSL.)

10 16

 Brendan and 1 other liked
Hacker Noon @hackernoon · Oct 8
[dbdiagram.io](#)—A Database Diagram Designer built for Developers and Analysts [hackernoon.com/dbdiagram-io-a... pic.twitter.com/DEBGplRQd](#)

18 44

 Stéphane Fréchette @sfréchette · Oct 8
A Database Diagram Designer Built for Developers and Analysts #databases [hackernoon.com/dbdiagram-io-a...](#)

2 4

 Data Elixir @dataelixir · Oct 10
A Database Diagram Designer Built for Developers and Analysts by @thong_da via [@hackernoon](#) [dataxr.com/2EbxBod](#)

4 18

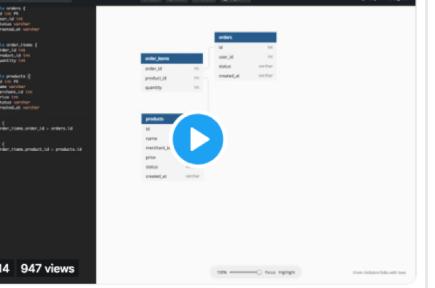
 Joan 🎃👻 Lee @JoanLeeTech · Oct 8
[dbdiagram.io](#)—A Database Diagram Designer built for Developers and Analysts [hackernoon.com/dbdiagram-io-a... pic.twitter.com/qhTlhCwSf](#) via hackernoon #hackernoon #developers #hacker

11

 Data Elixir @dataelixir · Oct 10
A Database Diagram Designer Built for Developers and Analysts by @thong_da via [@hackernoon](#) [dataxr.com/2EbxBod](#)

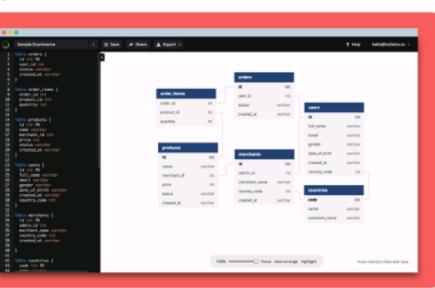
4 18

 HeyDesigner @HeyDesigner · Sep 27
Database diagram designer [dbdiagram.io](#) #database



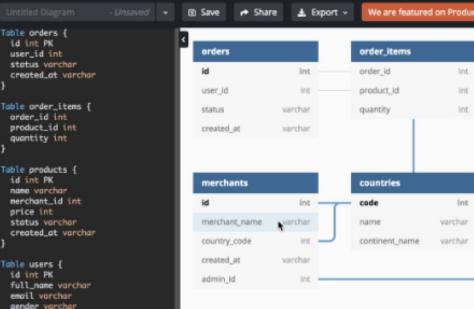
15 59

 Tech Junkie @techjunkiejh · Oct 11
A Database Diagram Designer Built for Developers and Analysts [buff.ly/2NwGckB](#)



1 1

 nystudio107 @nystudio107 · Oct 4
This looks like it could be downright priceless for sketching out the IA for some projects: [dbdiagram.io](#) #webdev #craftcms



11

 Theresa @tsullivanphoto · Oct 5
Most programming software is too much hassle for jotting down & writing ideas so I usually hand sketch my table structures when planning a database. [dbdiagram.io](#) looks like the perfect digital tool for this!

11

 CSS-Tricks @css · Oct 4
Need to sketch out a database model? [dbdiagram.io](#)

3 2

 Muhammet Dilmaç @m_dilmac · Sep 30
EER diagram çizerken MySQL WorkBench [dbdiagram.io](#)'a denk geldim. Gerçekten gerekli birakıp tamamen [db.diagram.io](#)'a geçebilim

dbdiagram.io
Translated from Turkish by Microsoft
I was using the MySQL Workbench when across it dbdiagram.io. It looks really good #diagram leave the workbench and go to dbdiagram.io

Twitter went Semi-viral



 **CSS-Tricks**
@CSS

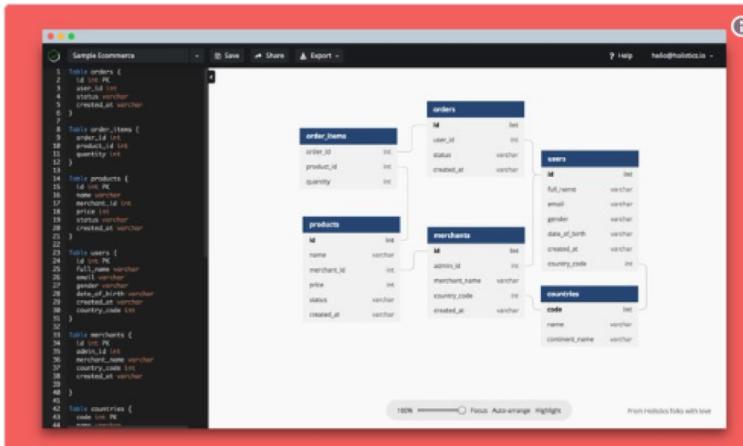
Need to sketch out a database model? [dbdiagram.io](#)

Heart 250 6:17 AM - Oct 4, 2018   69 people are talking about this 

 **Database Daily**
@DatabaseDaily

DBDiagram: A Relational Database Diagram Design Tool - [dbdiagram.io](#) (Quick and simple tool to help draw database relationship diagrams using a simple DSL.)

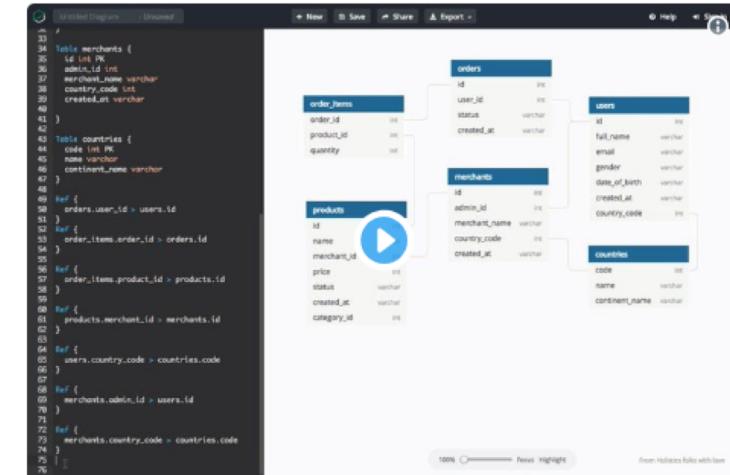
Heart 15 8:21 AM - Oct 1, 2018   See Database Daily's other Tweets 



 **Hacker Noon**
@hackernoon

dbdiagram.io—A Database Diagram Designer built for Developers and Analysts hackernoon.com/dbdiagram-io-a...

Heart 47 1:48 AM - Oct 8, 2018   18 people are talking about this 



 **Smashing Magazine** 
@smashingmag

A free online tool for drawing Entity-Relationship Diagrams by writing code. Designed specially for developers and data analysts.

↗ DB Diagram dbdiagram.io/home/
Heart 383 4:29 PM - Feb 22, 2019   117 people are talking about this 

Content Marketing



- Wrote 1 blog post:
“Top 5 Free Database Diagram Design Tools”
- Keywords Research: high volumes, low competition.

The screenshot shows a Google search results page with the query "database diagram". The results include a snippet from a Microsoft document explaining what a database schema is, followed by a link to the Holistics blog post.

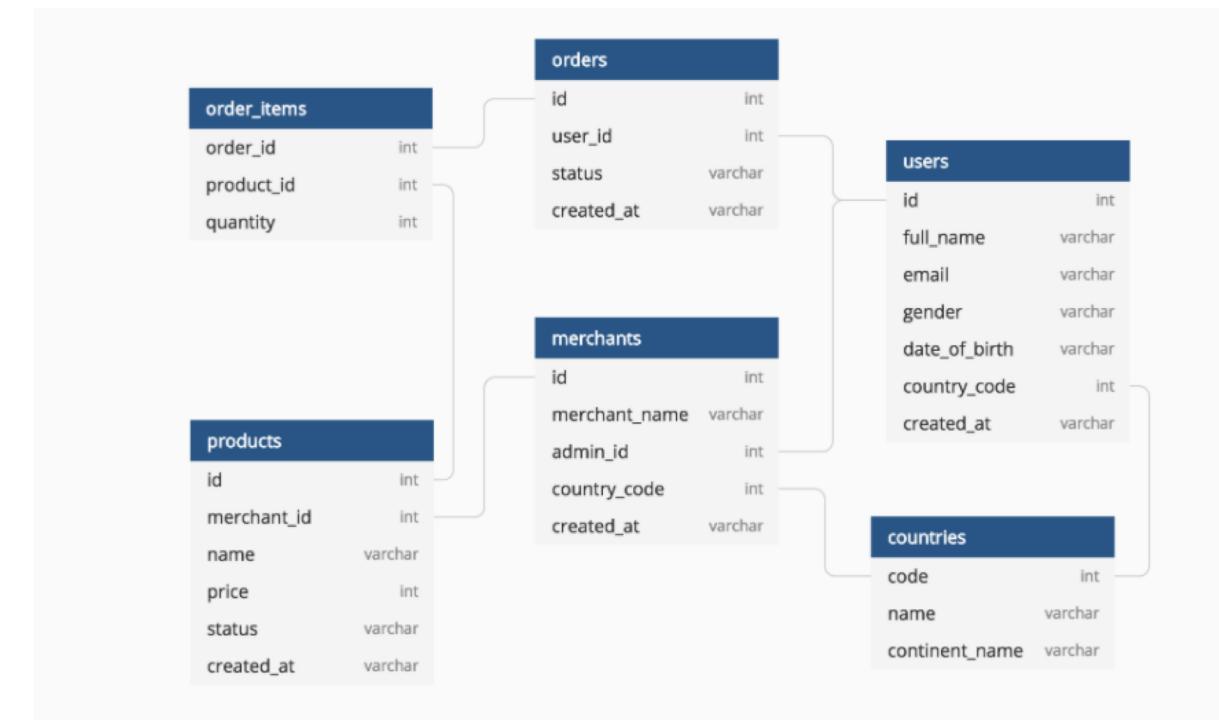
A database schema is the blueprints of your **database**, it represents the description of a **database** structure, data types, and the constraints on the **database**. And designing **database** schemas is one of the very first and important steps to start developing any software/website. Aug 12, 2018

[Top 5 Free Database Diagram Design Tools - Holistics.io](https://www.holistics.io/blog/top-5-free-database-diagram-design-tools/)
<https://www.holistics.io/blog/top-5-free-database-diagram-design-tools/>

The screenshot shows the Holistics Blog article titled "Top 5 Free Database Diagram Design Tools" by Anthony Thong Do, published on 12 AUGUST 2018. The article discusses the importance of database schema design and provides links to five free tools.

Top 5 Free Database Diagram Design Tools

by Anthony Thong Do



A database schema is the blueprints of your database, it represents the description of a database structure, data types, and the constraints on the database. And designing database schemas is one of the very first and important steps to start developing any software/website.

To help you determine the right tool for you to design database schema diagrams,

Dominating Google SERP on "database diagram"

database diagram



All

Images

Videos

News

More

Settings

Tools

About 750,000,000 results (0.51 seconds)

Top 5 Free Database Diagram Design Tools - Holistics

<https://www.holistics.io/blog/top-5-free-database-diagram-design-tools/> ▾

Aug 12, 2018 - Determine the right tool for you to design **database schema** diagrams, we've curated a list of 5 of the best free online database designer to do it.

dbdiagram.io - Database Relationship Diagrams Design Tool

<https://dbdiagram.io/home> ▾

Oct 7, 2018 - DBDiagram: A Relational **Database Diagram** Design Tool - <https://t.co/xW32hEkZQv>
(Quick and simple tool to help draw database relationship ...)

What is an Entity Relationship Diagram - Lucidchart

<https://www.lucidchart.com/pages/er-diagrams> ▾

An **Entity Relationship (ER) Diagram** is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system.

Database Structure and Design Tutorial | Lucidchart

<https://www.lucidchart.com/pages/database-diagram/database-design> ▾

I'm new to **Database diagrams** and want to learn more.I want to make my own **Database diagram** in Lucidchart.I want to make a **Database diagram** from a ...

How to create ER diagram for existing database with SSMS - Dataedo

<https://dataedo.com/tutorials/ssms/er-diagram-existing-database>



SEO Rankings

Keyword	Volume <small>i</small>	KD <small>i</small>	CPC <small>i</small>	Traffic <small>↓i</small>	Position <small>i</small>	URL <small>i</small>
database diagram	5	1,800	28	4.50	301	1 ↑ 3 dbdiagram.io/home
database design tool	5	700	39	10.00	277	1 ↑ 1 dbdiagram.io/home
database diagram tool	3	400	43	6.00	206	1 ↑ 1 dbdiagram.io/home
database schema design tool	7	500	36	9.00	140	1 ↑ 1 dbdiagram.io/home
er diagram tool	5	2,600	35	3.00	125	7 ↑ 1 dbdiagram.io/home
free database design tool	6	400	23	6.00	71	2 dbdiagram.io/home
entity relationship diagram tool	6	600	35	6.00	59	4 ↑ 7 dbdiagram.io/home



Product-led Growth

- Encourage users to share about products
- Integrations with other frameworks
- Utilize other platforms to promote product

Ask / Incentivize Users to Share

Sample DBD for Airbnb - *Unsaved*

Save Share Export Import Tweet ? Help

reviews

id	integer
booking_id	integer
rating	tinyint
review_body	text

bookings

id	integer
user_id	integer
place_id	integer
start_date	date
end_date	date
price_per_night	float
num_nights	integer

places

id	integer
host_id	integer
address	varchar
city_id	varchar

135% Focus Auto-arrange Highlight

Support us by spreading the word. You're awesome! Tweet

X O

```
1 Table users {
2   id integer [primary key]
3   email varchar [unique]
4 }
5
6 Table bookings {
7   id integer [primary key]
8   user_id integer
9   place_id integer
10  start_date date
11  end_date date
12  price_per_night float
13  num_nights integer
14 }
15
16 // Places
17 Table places {
18   id integer [primary key]
19   host_id integer [not null, unique]
20   address varchar
21   city_id varchar
22 }
23
24 Table reviews {
25   id integer [primary key]
26   booking_id integer
27   rating tinyint
28   review_body text
29 }
30
31 // A host is also a user, but with addit
32 Table hosts {
33   id integer [primary key]
34   user_id integer
35 }
36
37 Table cities {
38   id integer [primary key]
39   name varchar
40   country_id integer
41 }
42
43 Table countries {
44   id integer [primary key]
45   country_code varchar
46   name varchar
47 }
```



Spoonshot

Saved

Save

Share

History

Export

Import



holistics.io

Upgrade

? Help



```
1 Table ingredients {
2     id integer [pk]
3     name varchar
4 }
5
6 Table products {
7     id integer [pk]
8 }
9
10 Table ingredient_pairs {
11     id integer [pk]
12     left_id integer [ref: > ingredients]
13     right_id integer [ref: > ingredient:
14 }
15
16
17 Table products_ingreds {
18     product_id integer [ref: > products]
19     ingredient_id integer [ref: > ingre
20 }
21
22 }
```



products_ingreds

product_id	integer
ingredient_id	integer

In love with Dark Mode 🌙?

1. Tweet about @dbdiagram or share publicly on Facebook

Tweet Share

2: Paste your tweet/post below to claim Dark Mode

<https://twitter.com/yourTweet>

Claim

Or upgrade to our Pro plan now to get Dark Mode, Color Header, Table Group and access all our upcoming features!

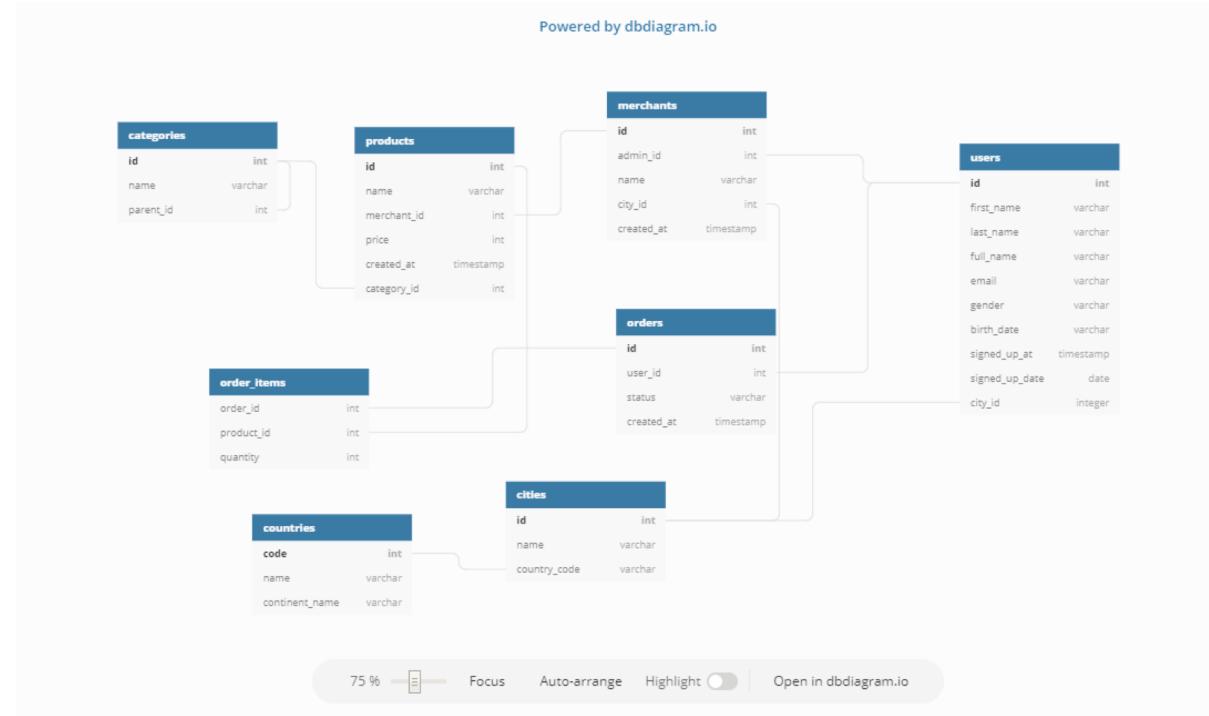
[View Plans](#)

ingredient_pairs

id	integer
left_id	integer
right_id	integer

Embedded Diagram

Edge cases & random ideas



How many users who have made at least 1 order, show this monthly?

- How many orders (unique by user) monthly experience cancelled orders?
- How many "unique customers" experience "cancelled orders" monthly, broken down by customer's gender
 - Measure: Orders (unique by user)
 - Dimension: Monthly

1

Integrations with existing frameworks

November 1, 2018

Support Import Database from Rails app (from schema.rb)

Today we are excited to share that we now support Rails!

If you are a Rails developer, you can quickly generate a database relationship diagram (or ERD diagram) from your schema.rb

👉 [Check out our blog here](#)



Hacker News new | threads | past | comments | ask | show | jobs | submit thongda (5) | logout

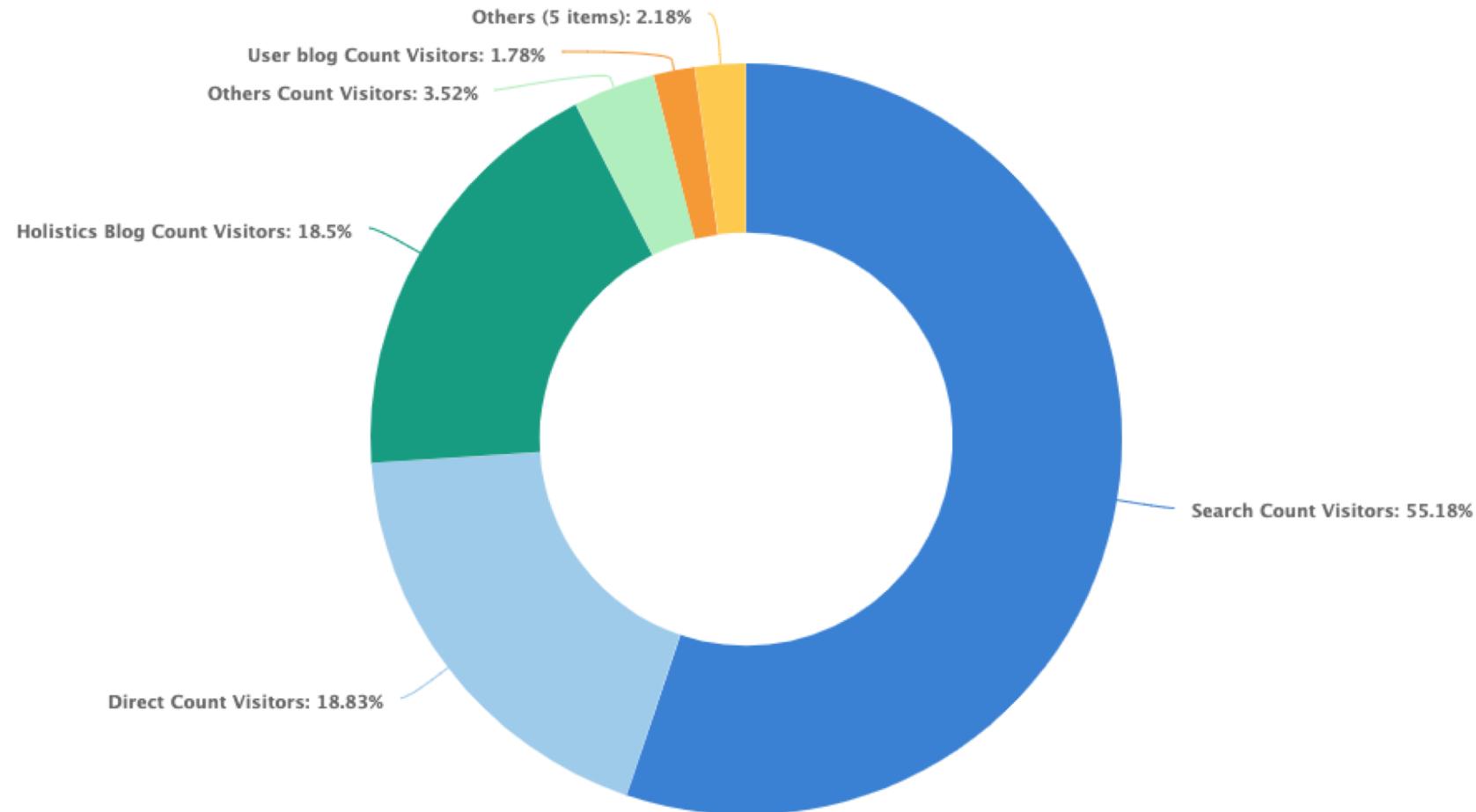
Show HN: Visualize Your Rails App to ER Diagram Automatically (holistics.io)

104 points by huy 7 months ago | hide | past | web | favorite | 32 comments

X

O

Which channels work best?



[Filters](#) Date any time

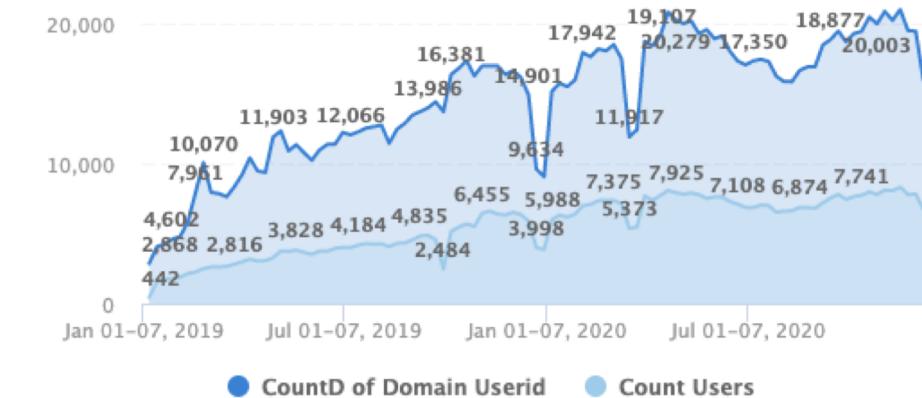
Total Registered User... ⓘ

260.98K
Total Users

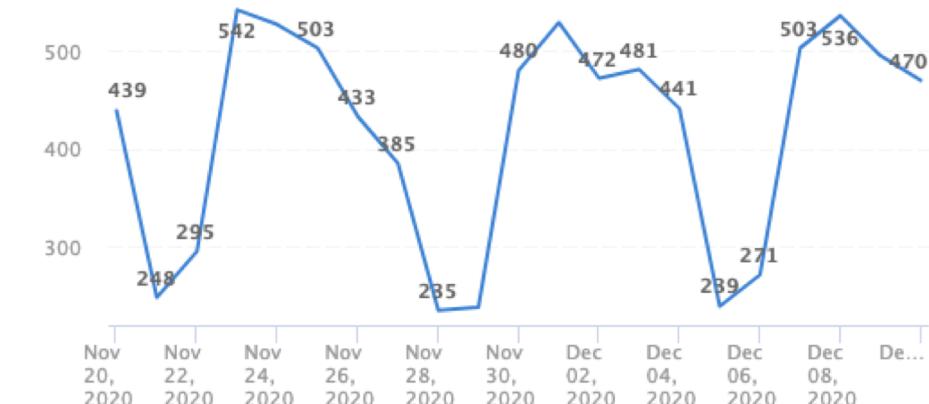
Total Diagrams Created

481.86K
Total Diagrams

Weekly Active Users



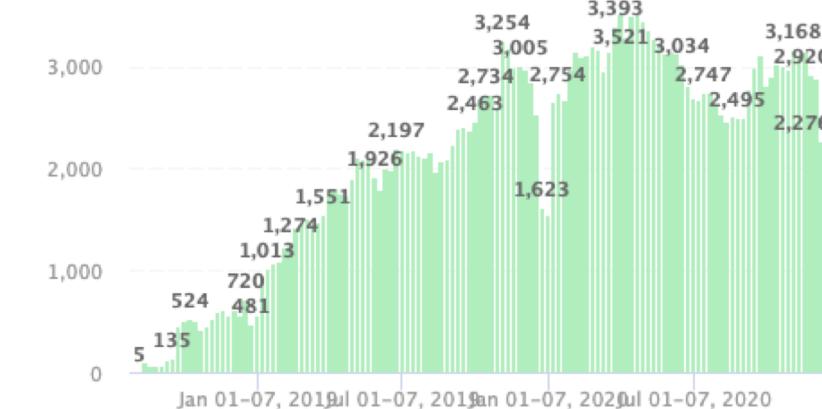
Daily registration - Last 3 weeks ⌂



Registered Users (moving average)

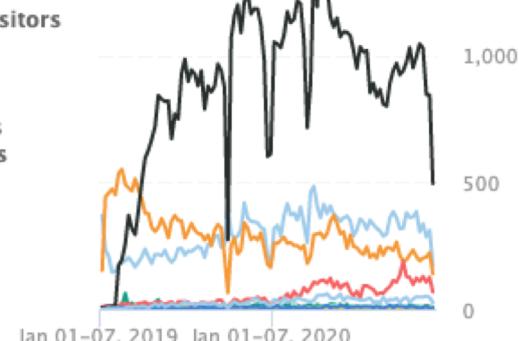


Weekly registration



Visitors by acquisition channel ⌂

- Collaboration apps Count Visitors
- Direct Count Visitors
- Facebook Count Visitors
- Github Count Visitors
- Holistics Blog Count Visitors
- Message apps Count Visitors
- Others Count Visitors
- Search Count Visitors
- Twitter Count Visitors
- User blog Count Visitors



How people are using dbdiagram?

- Teach courses
- Ask questions on StackOverflow
- Write thesis
- Technical blog posts
- Design software
- ...

The image shows a YouTube video player with two windows side-by-side. The left window displays a screenshot of the dbdiagram.io interface, showing a code editor with SQL schema definitions and a diagram view with tables like users, merchants, countries, and orders. The right window shows a slide titled "Types of relationships" with diagrams for "One to many" and "One to one".

One to many
"An owner has many properties"
(properties stores foreign key owner_id)

One to one
"A passport belongs to a person"
(passports stores foreign key person_id)

[Backend #1] Design DB schema and generate SQL
4,864 views • Jun 6, 2020

ND004 C01 L07 14.1 Model Many-To-Many Relationships
Unlisted
3,611 views • Aug 12, 2019

stack overflow Products Search... +30

Is this a correct database design? (pk fk set and references)

Asked 1 year, 10 months ago Active 1 year, 10 months ago Viewed 67 times

So parents can have many clubs and children. Each clubs can have many teams that have children in them. Children can join multiple teams.

0 I am confused with all these many relationships and I created a schema using a tool here: <https://dbdiagram.io/d/5c455e3807ce540014df3eb2>

Did I properly set keys and referenced them here?

[database-design](#) [foreign-keys](#) [relational-database](#) [primary-key](#)

share edit follow close flag edited Jan 21 '19 at 6:57 a_horse_with_no_name 412k 71 630 715 asked Jan 21 '19 at 6:08 wathecode 21 3

1 Answer

your relational table design looks ok. Just as an alternative you may consider to use hierarchical table for parent and children. but, this is design consideration and it is totally up to you (follow YAGNI (you aren't gonna need it) principles)

```
Table person {
    id int PK
    name varchar
    parent_id int
}

Table club {
    id int PK
    person_id int
    class_id int
    name varchar
}

Table team {
    id int PK
    club_id int
    children_id int
    num_of_children int
}
```

GP_CPOINT_2018_2_DONIZETY_BALTOKOSKI_PROJETO... 22 / 38

¹Este modelo foi desenvolvido com dbdiagram.io e está disponível publicamente em <<https://dbdiagram.io/d/5be4b302cf7cf50014f2a984>>

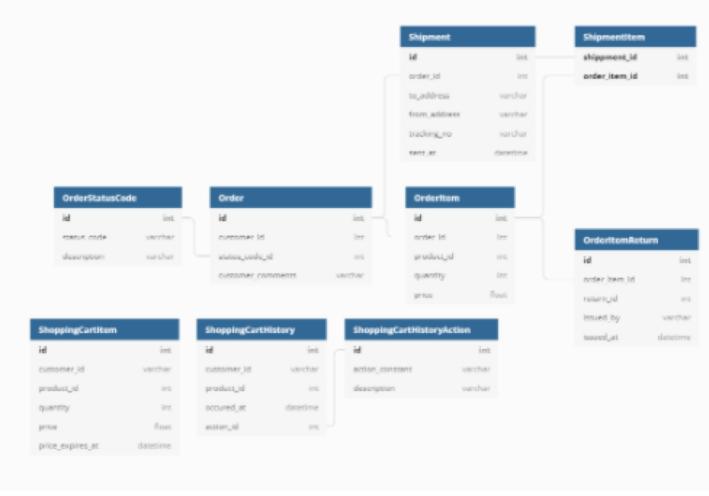
Capítulo 4. ANÁLISE E PROJETO DO SISTEMA 12

Diagrama do Banco de Dados

4.4 PROTÓTIPO DE TELAS

Model may have a dedicated shipping context/schema?

With some of these concerns in mind, you might end up with a data model that looks more like this:



Some things to take note of in this more complex orders model:

- **ShoppingCartItem** now supports an expiration date for a locked-in price.
- **ShoppingCartHistory** tracks when items are added, removed, etc.
- An order item may be returned (this still does not handle cases where 1 out of X items of the same product are returned).
- An order may have multiple shipments (eg, how Amazon will sometimes split an order up into multiple packages/shipments).

This article also hasn't even touched the surface of using alternative data storage methods like JSON documents or event sourcing!

- A User belonging to many Groups has all the Group attribute values **combined**
- User attribute entries **override** all Group attribute entries of the same attribute
- Attribute values must be valid for the attribute type
- All custom (not built-in) user attributes of admins are set to ALL
- Public users inherit attribute values from their creator/sharer, so that the access scope of a public user is restricted within its creator's access scope
- User Attributes created by tenants must not begin with built-in prefix `h_`

Database models



What's next?

- An ecosystem of data products

- Turns out what people like is
write code get diagram

```
Project Ecommerce {
    database_type: 'PostgreSQL'
    note: ''
    # Ecommerce Database
    **markdown content here**
}

Table users as U {
    id varchar [pk, increment]
    full_name varchar
    created_at timestamp
    country_code int

    note: "table 'users' contains user information"
}

Table merchants {
    id int [pk]
    merchant_name varchar
    country_code int [note: "country of merchant"]
    admin_id int [ref: > U.id]
    created_at datetime [default: `now()`, note: "created time"]

    note: "table 'merchants' contains merchant information"
}

Table countries {
    code int [pk]
    name varchar
    continent_name varchar
}
```

[Code](#)[Issues 49](#)[Pull requests 14](#)[Actions](#)[Projects](#)[Wiki](#)[Security 44](#)

...

[master](#)[dbml / README.md](#)

stepanic Update README.md

7 contributors



47 lines (34 sloc) | 1.9 KB

DBML - Database Markup Language

[build](#) [passing](#)

DBML (database markup language) is a simple, readable DSL language designed to

For more information, please check out [DBML homepage](#)

Benefits

- It is simple, flexible and highly human-readable
- It is database agnostic, focusing on the essential database structure definition syntaxes of each database
- Comes with a free, simple database visualiser at [dbdiagram.io](#)
- Also comes with a free database documentation app at [dbdocs.io](#)

DBML

[Home](#)[Docs](#)[CLI](#)[JS Module](#)[Github](#)[Community](#)

DBML - Database Markup Language

[Intro](#)

Benefits

Is this similar to SQL DDL?

What can I do now?

[dbdiagram](#)

Command-line Tool (CLI)

DBML History

DBML Statistics

Who's behind DBML?

Community

Community Contributions

DBML - Database Markup Language

Intro

DBML (Database Markup Language) is an open-source DSL language designed to define and document database schemas and structures. It is designed to be simple, consistent and highly-readable.

It also comes with command-line tool and open-source module to help you convert between DBML and SQL.

```
Table users {  
    id integer  
    username varchar  
    role varchar  
    created_at timestamp  
}
```

```
Table posts {  
    id integer [primary key]  
    title varchar  
    body text [note: 'Content of the post']  
    user_id integer  
    status post_status  
    created_at timestamp  
}
```

```
Enum post_status {  
    draft  
    published  
}
```



Infrastructure as Code

- The idea has been widely popular in DevOps space
- Benefits
 - **Reliable:** easy to debug, test & detect issues
 - **Reusable:** Can turn into libraries
 - **Maintainable:** Can put into Git for version control
 - **Workflow Automation:** Write script to auto set-up machines, integrate with CI/CD

```
variable "base_network_cidr" {  
  default = "10.0.0.0/8"  
}  
  
resource "google_compute_network" "example" {  
  name           = "test-network"  
  auto_create_subnetworks = false  
}  
  
resource "google_compute_subnetwork" "example" {  
  count = 4  
  
  name           = "test-subnetwork"  
  ip_cidr_range = cidrsubnet(var.base_network_cidr, 4, count.index)  
  region        = "us-central1"  
  network       = google_compute_network.example.self_link  
}
```



What about “Database Schema As Code?”

- Universal DSL language to define database structure
- Check in `database.dbml` into Git project.
- Integrate with CI/CD
- Values:
 - Central source of truth for database definition & logic
 - Onboard new team members

```
Project Airbnb {
    database_type: 'PostgreSQL'
    note: ''
    # AirBnb Sample Database
}

Ref: cities.country_id > countries.id
Ref: places.host_id > hosts.id
Ref: users.id < bookings.user_id
Ref: bookings.place_id > places.id
Ref: places.city_id > cities.id
Ref: hosts.user_id > users.id
Ref: "bookings"."id" < "reviews"."booking_id"

Table users {
    id integer [pk]
    email varchar [unique, note: "Used as login id"]
}

Table bookings {
    id integer [pk]
    user_id integer
    place_id integer
    start_date date
    end_date date
    price_per_night float
    num_nights integer
    note: "Some notes about bookings"
}
```

What about “Database Schema As Code?”

The image shows a screenshot of a GitHub repository interface. On the left, there's a sidebar for the repository 'avniproject / avni-db-model'. The main area displays the contents of a file named 'Makefile'.

Code master 1 branch 0 tags

petmongrels transaction data, user define data model

1 contributor

20 lines (15 sloc) | 446 Bytes

```
1 su:=$(shell id -un)
2
3 setup:
4     yarn global add @dbml/cli
5     yarn global add dbdocs
6     npm i -g @polarislabs/pg-to-dbml
7
8 generate-db-dump:
9     -rm dump.sql
10    sudo -u $(su) pg_dump openchs -n public -s > dump.sql
11
12 generate-dbml:
13     sql2dbml dump.sql --postgres -o avni.dbml
14
15 generate-dbml-from-db:
16     pg-to-dbml -c postgresql://vsingh:password@localhost:5432 --db=openchs -s public -o=.
17
18 create-dbdocs-view:
19     echo main-database | pbcopy
20     dbdocs build ./avni.dbml
```

 jidn / vim-dbml

 Code  Issues  Pull requests  Actions

 master 

[vim-dbml / README.md](#)

 Clinton James Initial commit

 0 contributors

57 lines (35 sloc) | 1.81 KB

dbml.vim

DBML(Database Markup Language) is
It is designed to be simple, consistent

This [vim](#) plugin provide nice syntax color

Notable features include:

`Ref:` and `Note:` coloring val

README.md

 pypi v0.3.4  GitHub v0.3.4

DBML parser for Python

PyDBML is a Python parser for [DBML](#) syntax.

Installation

You can install PyDBML using pip:

```
pip install pydbml
```

Quick start

Import the `PyDBML` class and initialize it with path to

```
>>> from pydbml import PyDBML
>>> from pathlib import Path
>>> parsed = PyDBML(Path('test_schema.dbml'))
```

README.MD

DBML parser for Go

DBML-go is a Go parser for [DBML](#) syntax.

Installation

Go get

```
go get github.com/duythintht/dbml-go/...
```

Quick start

```
package main

import (
    "fmt"
    "os"

    "github.com/duythintht/dbml-go/parser"
    "github.com/duythintht/dbml-go/scanner"
)
```

Next: dbdocs.io



Build a database documentation easily 😎

A free & simple tool to create web-based database documentation using DSL code.
Designed for developers. Integrate seamlessly with your development workflow.

[Access Open Beta](#)[Live Demo](#)

The screenshot shows a terminal window with two tabs. The left tab is in vim editor mode, displaying a database schema definition in a DSL (likely dbml) for an Airbnb project. The right tab is a zsh shell, showing the command `~ dbdocs build airbnb.dbml --project airbnb` being run, followed by a success message indicating file parsing, password status, and a generated URL (`https://dbdocs.io/nvquanghuy/airbnb`). A final message thanks the user for using dbdocs and provides a feedback link.

```
Project Airbnb {
    database_type: 'PostgreSQL'
    note: ''
    # AirBnb Sample Database
    ...
}

Ref: cities.country_id > countries.id
Ref: places.host_id > hosts.id
Ref: users.id < bookings.user_id
Ref: bookings.place_id > places.id
Ref: places.city_id > cities.id
Ref: hosts.user_id > users.id
Ref: "bookings"."id" < "reviews"."booking_id"

Table users {
    id integer [pk]
    email varchar [unique, note: "Used as login id"]
}

Table bookings {
```

```
huy@Huys-Mac-mini: ~
              × ~ (-zsh)
→ ~ dbdocs build airbnb.dbml --project airbnb
✓ Parsing file content
△ Password is not set for 'airbnb'
✓ Done. Visit: https://dbdocs.io/nvquanghuy/airbnb
: Thanks for using dbdocs! We'd love to hear your feedback: https://form.jotform.com/200962053361448
→ ~
```



JotForm APP 12:44 AM



New feedback from [dbdocs.io](#) user!

How would you feel if you could no longer use dbdocs.io?

Somewhat disappointed

What is the main benefit you receive from dbdocs.io?

Standardized database documentation with the entire team. While there are ERD tools,

the fact that something like [dbdocs.io](#) doesn't yet exist is crazy. This feels like essential tooling, and dbdocs is already doing it quite well.

How can we improve dbdocs.io for you?

Simplified sharing across the team, authentication via Github (current password authentication is too insecure).

Would also be wonderful if we could have docs across different Github branches, to better capture schema changes that are in-progress.

What type of person/job do you think would find dbdocs.io useful?

Engineers across the stack

How likely is it that you would recommend dbdocs.io to a friend or colleague?

Extremely likely

Your email

In case we need clarification on your answers above, will you be open for a short call?

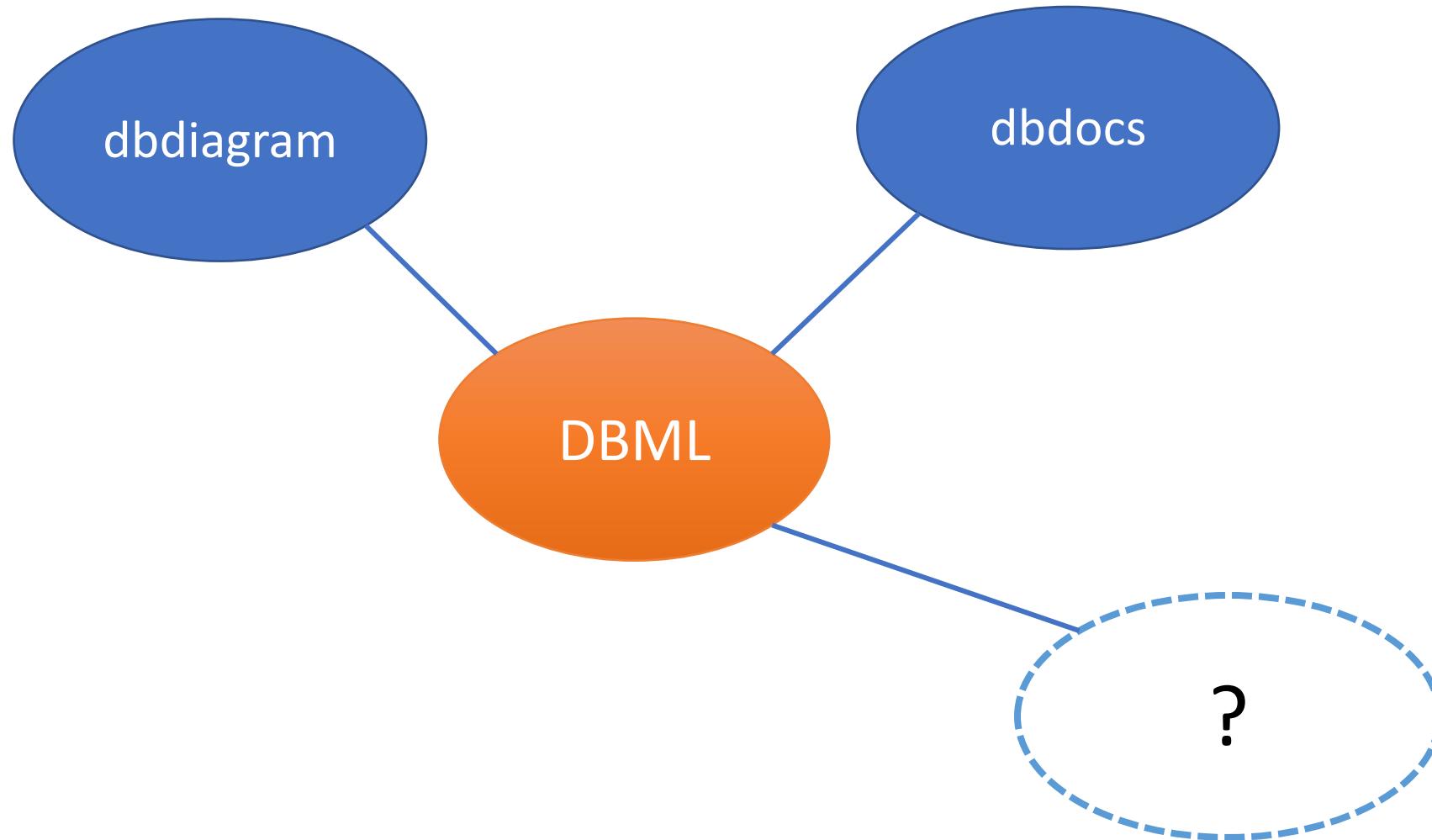
Sure!



JotForm | Nov 24th

[View submission](#)

An ecosystem of database products





The Takeaway

- Product engineers usually **under-look Distribution** when building a product.

Justin Kan 
@justinkan

First time founders are obsessed with product.

Second time founders are obsessed with distribution.

9:03 AM · Nov 7, 2018 · Twitter for iPhone

1.7K Retweets 273 Quote Tweets 6.9K Likes

Thank you!



Want to work on DBML?

Join us: Product Engineer / Product Manager

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