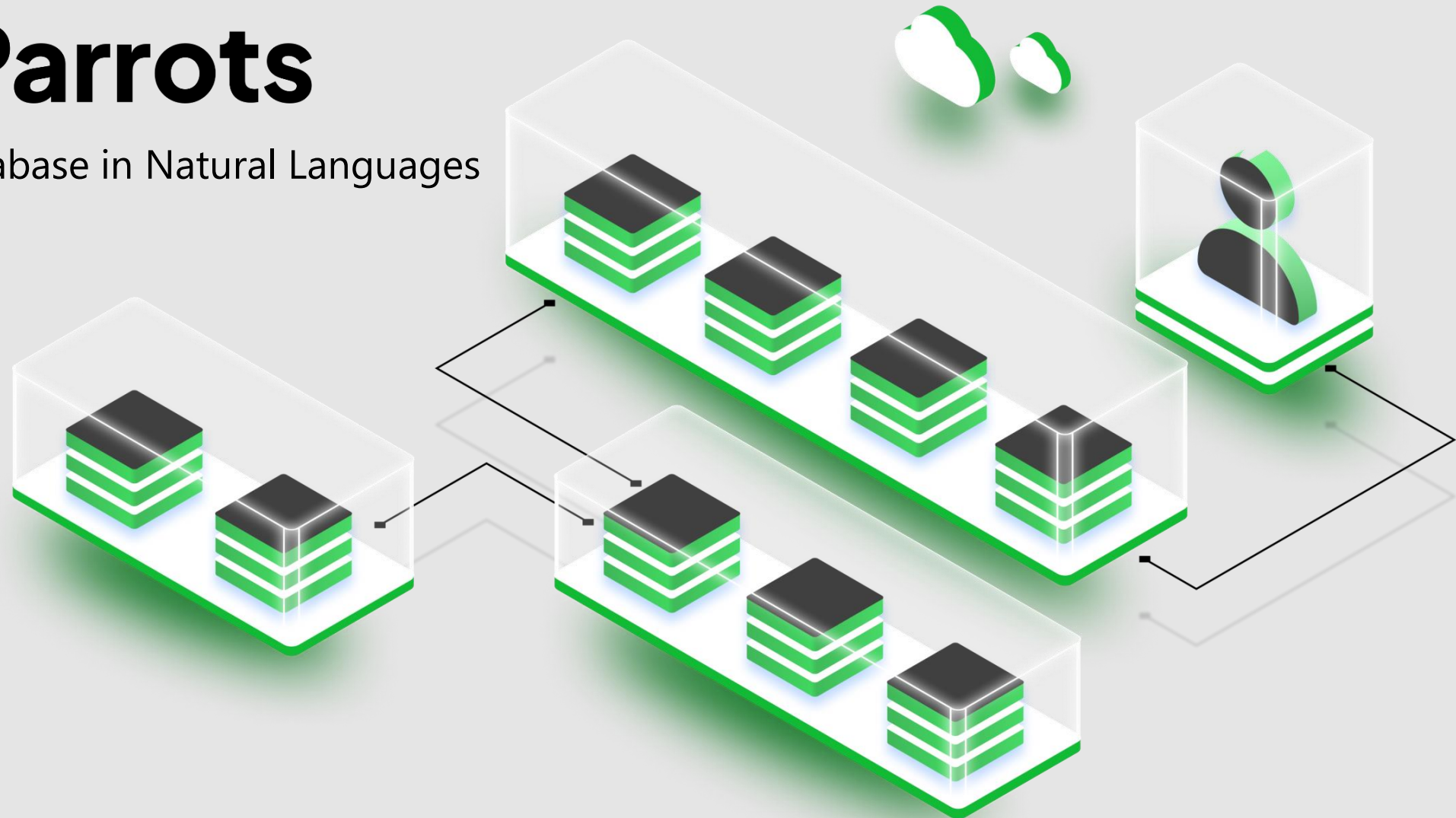


# DataParrots

Query your Database in Natural Languages



# What is DataParrots

Easy tool to get data from databases with natural languages in an organization

## Natural Language Queries

- Interact with database in plain natural language
- Ask questions such as
  - "What is the average revenue per region?"
  - "How many customers bought product X in the last quarter?"
- You ask questions, DataParrots answers with data

## Real-time Data Exploration

- Ask questions and get answers in real time
- Ask follow up questions and get answers in real time as well
- Explore data the way you want
- Enables spontaneous discoveries, gain deeper insights

# Why DataParrots

Serve businesses who need Ad Hoc and Real Time access to their data

## Ad Hoc Questions

- Requirements not defined in advance
- Requirements not structured
- Pre-defined reports is not adequate

## Real Time Response

- Those “need the data now” moments
- Spontaneous discoveries
- Real time “conversation” with data

## Unprepared Data Sources

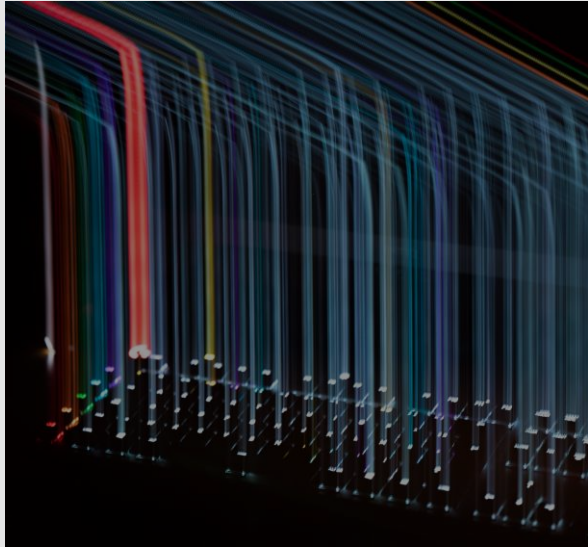
- Special skills required to construct “data semantics”
- Tools are not designed for non-specialists



# Why So Challenging?

- **You must know SQL (Structured Query Language)**  
A Computer Programming Language
- **You must know database technology**  
Tables, Columns, Primary Keys, Foreign Keys, Data Types, ...
- **You must know the technical structure of your data**  
Database Schema, Tables, Columns, Relationships
- **You must know the dialects of the database products**  
MySQL, SQL Server, Oracle, etc
- **You must know how to execute SQL and extract results**  
Toolset, Data format, Data presentation

# DataParrots Removes the Technical Barriers



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Business professionals interact with data directly and independently



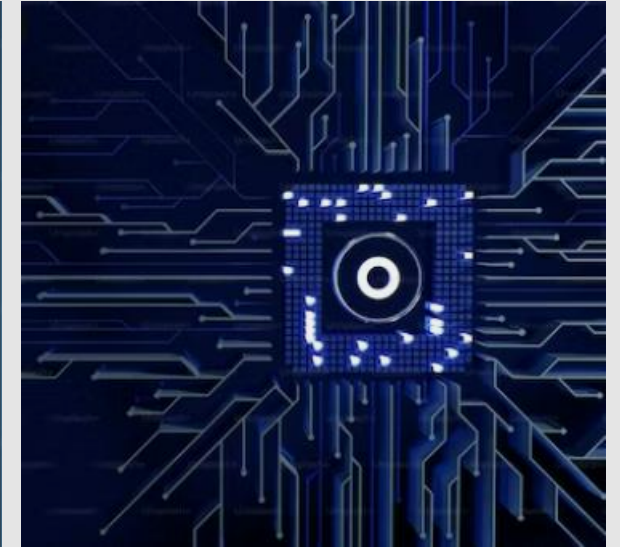
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Technical professionals create SQL queries more efficiently



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Organizations operationalize data access and data security



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Support a growing list of database products:

MySQL, SQL Server, Oracle, PostgreSQL, MariaDB, SQLite, ...

# For Business Professionals



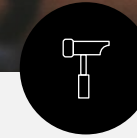
## Ask Questions in Plain Language

Ask questions in plain language and interact with data directly and intuitively



## Handle Wide Range of Queries

"Show me the sales revenue by region "  
"Find the top 10 customers who bought the most products from category A and B in the last quarter"



## Get Answers in Real-time

Get answers in real-time, no more waiting for hours or even weeks to get special reports developed



## Seamless and Easy to Use

Experience seamless and flexible interaction with data, with intuitive environment



## Data Source for Analytics

Get data for use with other analytic tools such as Microsoft Excel or Power BI



## Your Data Portal

Revisit past queries, save favorite queries, view tables, create charts, even create your own dashboards

## DataParrots Database Query Workbench

Select Database

MySQL\_Sakila

Database Schema

- actor
- actor\_info
- address
- category
- city
- country
- customer
- customer\_list
- film
- film\_actor
- film\_category
- film\_list
- film\_text
- inventory
- language
- nicer\_but\_slower\_film\_list
- payment
- rental

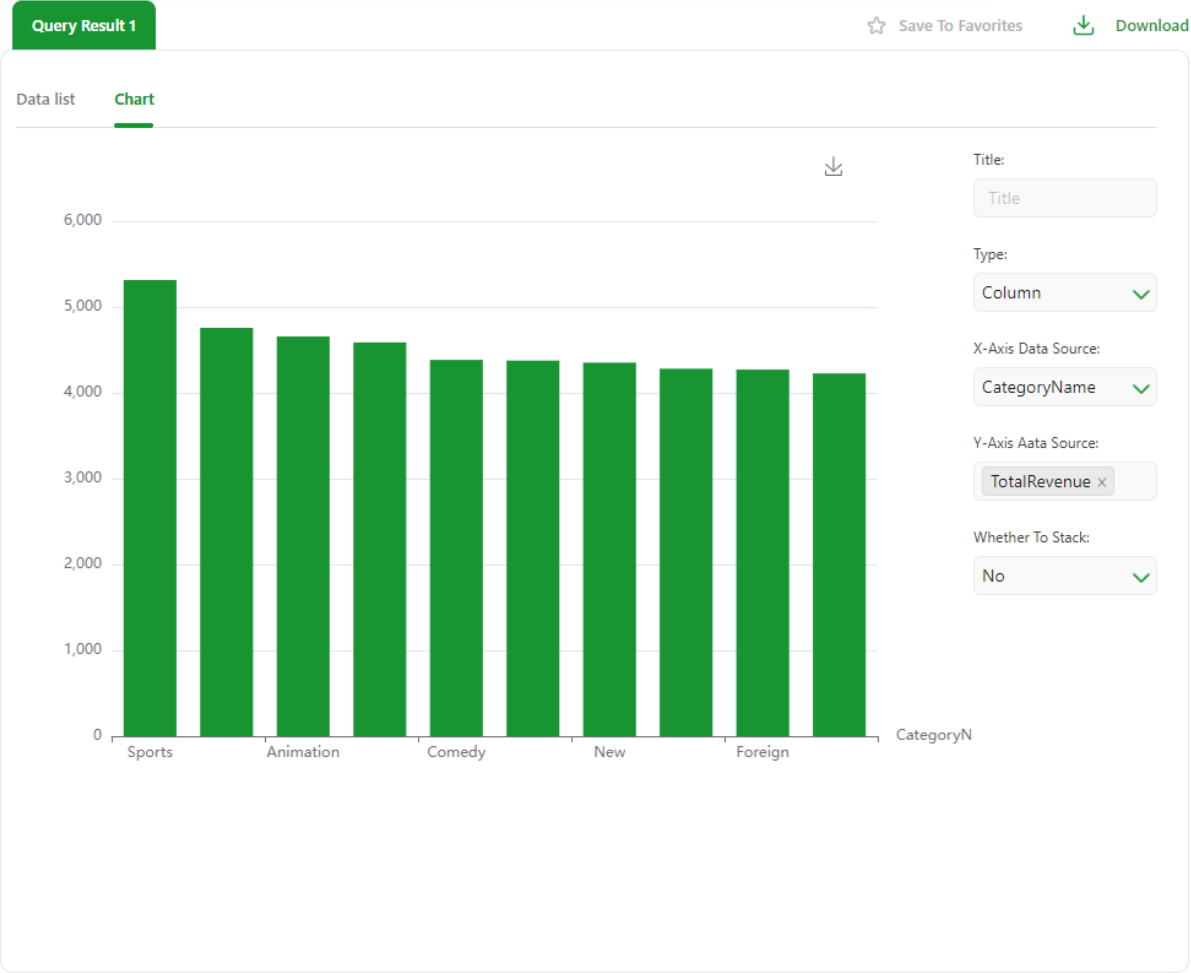
Summary

Dashboard

susan

which category do the top ten best selling movies belong to? how much revenue in each? ✕ Get SQL Query

```
SQL 
SELECT
  category.name AS CategoryName,
  SUM(payment.amount) AS TotalRevenue
FROM
  film
INNER JOIN
  film_category ON film.film_id =
  film_category.film_id
INNER JOIN
  category ON film_category.category_id =
  category.category_id
INNER JOIN
  inventory ON film.film_id = inventory.film_id
INNER JOIN
  rental ON inventory.inventory_id =
  rental.inventory_id
INNER JOIN
  payment ON rental.rental_id = payment.rental_id
GROUP BY
  category.name
ORDER BY
  TotalRevenue DESC
LIMIT
  10;
```



- ### Favorites
- what are the top ten most rented movies?
  - which actor are the most liked?
- ### History
- which category do the top ten best selling movies belong to? how much revenue in each?
  - which category do the top test best selling movies belong to? how much revenue in each?
  - What are the top three movies with the highest average rental duration?
  - What are the top three movies with the
- ### Questions You May Like
- Which city has the highest total sales?
  - What is the average rental duration for m...
  - Which actors have appeared in the most ...
  - Which city has the highest number of cus...
  - What is the average rental duration of fil...
  - Which actors have appeared in the most ...



# For Technical Professionals



Auto database schema  
discovery and comprehension



SQL query generation based  
on natural language inquiry



Query optimization with  
in-place editing and testing



Query history and rapid  
database switching



### Select Database

SQLServer\_sakila\_1

#### Database Schema

- actor
- address
- category
- city
- country
- customer
- film
- film\_actor
- film\_category
- film\_text
- inventory
- language
- payment
- rental
- staff
- store

Summary

Dashboard

what are the top ten best selling movies? who played in them?



Get SQL Query

#### Generated SQL Query

```
WITH FilmSales AS (  
  SELECT TOP 10  
    [inventory].[film_id],  
    COUNT(*) AS [TotalSales]  
  FROM [payment]  
  INNER JOIN [rental] ON [payment].[rental_id] = [rental].[rental_id]  
  INNER JOIN [inventory] ON [rental].[inventory_id] = [inventory].[inventory_id]  
  GROUP BY [inventory].[film_id]
```



Execute Query

#### My SQL Query:

```
WITH FilmSales AS (  
  SELECT TOP 10  
    [inventory].[film_id],  
    COUNT(*) AS [TotalSales]  
  FROM [payment]  
  INNER JOIN [rental] ON [payment].[rental_id] = [rental].[rental_id]  
  INNER JOIN [inventory] ON [rental].[inventory_id] = [inventory].[inventory_id]  
  GROUP BY [inventory].[film_id]  
  ORDER BY [TotalSales] DESC  
)
```



Save To Favorites

Execute Query

#### Query Result 1

Download

Data list

Chart

FilmID	FilmTitle	ActorName
103	BUCKET BROTHERHOOD	RIP CRAWFORD
103	BUCKET BROTHERHOOD	TIM HACKMAN
103	BUCKET BROTHERHOOD	GARY PHOENIX
103	BUCKET BROTHERHOOD	CHARLIZE DENCH
103	BUCKET BROTHERHOOD	KIRSTEN AKROYD
103	BUCKET BROTHERHOOD	BURT TEMPLE
738	ROCKETEER MOTHER	JUDY DEAN
738	ROCKETEER MOTHER	TOM MIRANDA
738	ROCKETEER MOTHER	CHRIS BRIDGES

Favorites

History

what are the top ten best selling movies?  
who played in them?

Questions You May Like

Which category has the highest number of...

What is the total revenue generated by the...

What is the average rental duration of the ...

# For Organizations



## Data Access

- Infrastructure to democratize data access to everyone who needs it
- Empower organization with productivity increase
- Data source for other data analytics tools

1



## Central Management

- Authorized user management
- Authorized database management
- Access control management

2



## Data Security

- No sending business data to cloud services\*
- No cloud storage of business data

3

\* Meta data (database schema) and natural language questions are sent to the cloud webservice for SQL generation

- Select Database
- Dashboard
- User Management
- Database Management
- Group Management**

### Database Group (5)

#### group01

Amount  
1

Assigned Users  
1

Database:

SQLite\_wta\_1

Register Time: 2023/12/06 03:17:07  
Last-Modified: 2023/12/29 06:52:43

#### group02

Amount  
2

Assigned Users  
1

Database:

SQLite\_wta\_1

MySQL\_Sakila

Register Time: 2023/12/06 05:16:16  
Last-Modified: 2023/12/06 06:30:06

#### group03

Amount  
0

Assigned Users  
2

Database:

Register Time: 2023/12/06 05:34:17  
Last-Modified: 2023/12/06 06:26:56

#### demo01

Amount  
30

Assigned Users  
2

Database:

SQLite\_wta\_1

SQLServer\_world\_1

SQLServer\_sakila\_1

MySQL\_world

MySQL\_Sakila

SQLite\_world\_1

SQLite\_soccer\_1

SQLite\_sakila\_1

SQLite\_college\_2

MySQL\_Wta\_1

SQLServer\_wta\_1

SQLServer\_soccer\_1

### Edit Group

\* Group Name

demo01

\* Select database

- SQLite\_wta\_1 x
- SQLServer\_world\_1 x
- SQLServer\_sakila\_1 x
- MySQL\_world x
- MySQL\_Sakila x
- SQLite\_world\_1 x
- SQLite\_soccer\_1 x
- SQLite\_sakila\_1 x
- SQLite\_college\_2 x
- MySQL\_Wta\_1 x
- SQLServer\_wta\_1 x
- SQLServer\_soccer\_1 x
- SQLServer\_college x
- MySQL\_soccer\_1 x
- MySQL\_college x
- MariaDB\_world x
- MariaDB\_soccer x
- MariaDB\_wta x
- MariaDB\_sakila x
- MariaDB\_college x
- Oracle\_World\_1 x
- Oracle\_Wta\_1 x
- Oracle\_Sakila\_1 x
- Oracle\_Soccer\_1 x
- Oracle\_College x
- Postgres\_Wta\_1 x
- Postgres\_College x
- Postgres\_Soccer\_1 x
- Postgres\_Sakila\_1 x
- Postgres\_World\_1 x

MultiSelect

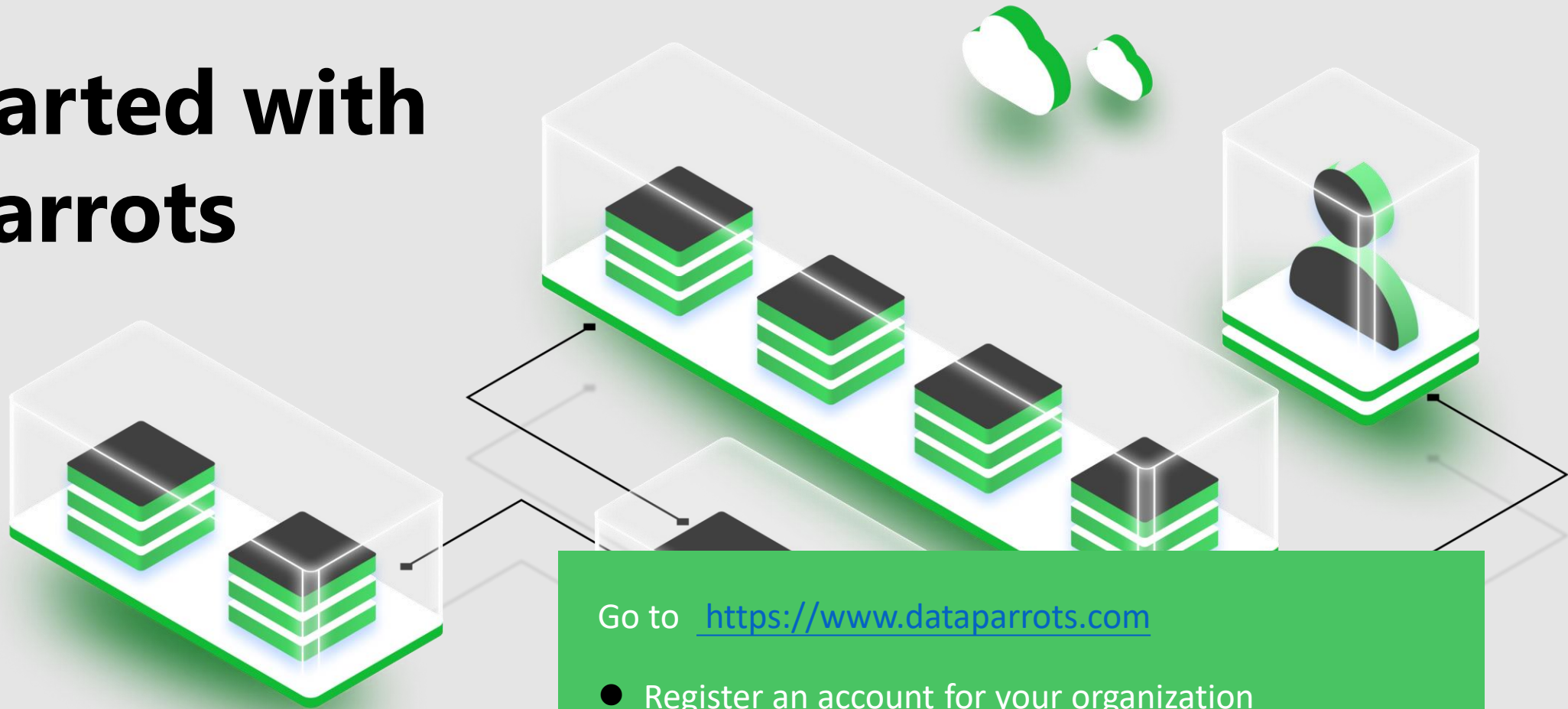
- User/leo x
- Tech User/adam x

reset

cancel

ok

# Get Started with DataParrots



Go to <https://www.dataparrots.com>

- Register an account for your organization
- Install DataParrots Web App in your environment
- Start using DataParrots



# DataParrots

Query your Database in Natural Languages