

DATASTAX

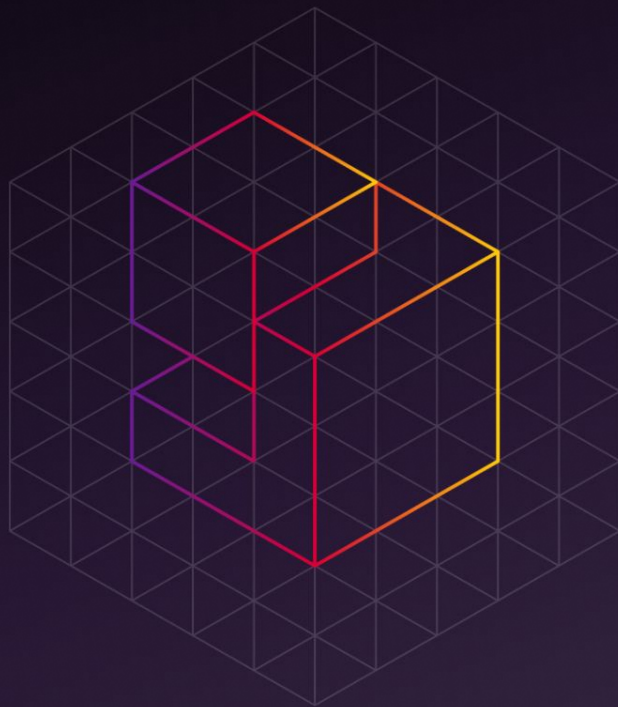
DATASTACK

HANDS-ON WORKSHOP

› Build a Full-Stack Application with Cassandra and React

JUNE 14TH, WEDNESDAY

8 AM PT | 11 AM EST | 5 PM CET | 8.30 PM IST



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DEVELOPERS

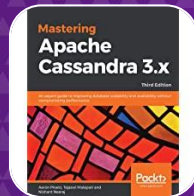
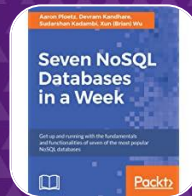


Aaron Ploetz

Developer Advocate /
Author



- 3x Cassandra MVP
- Prior DB Engineering Lead @ **GRAINGER** & **TARGET**
- Host - Apache Cassandra® Corner **podcast**
- Worked as an **author** on:
Mastering Apache Cassandra 3.x
Seven NoSQL Databases in a Week

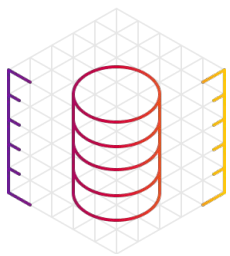




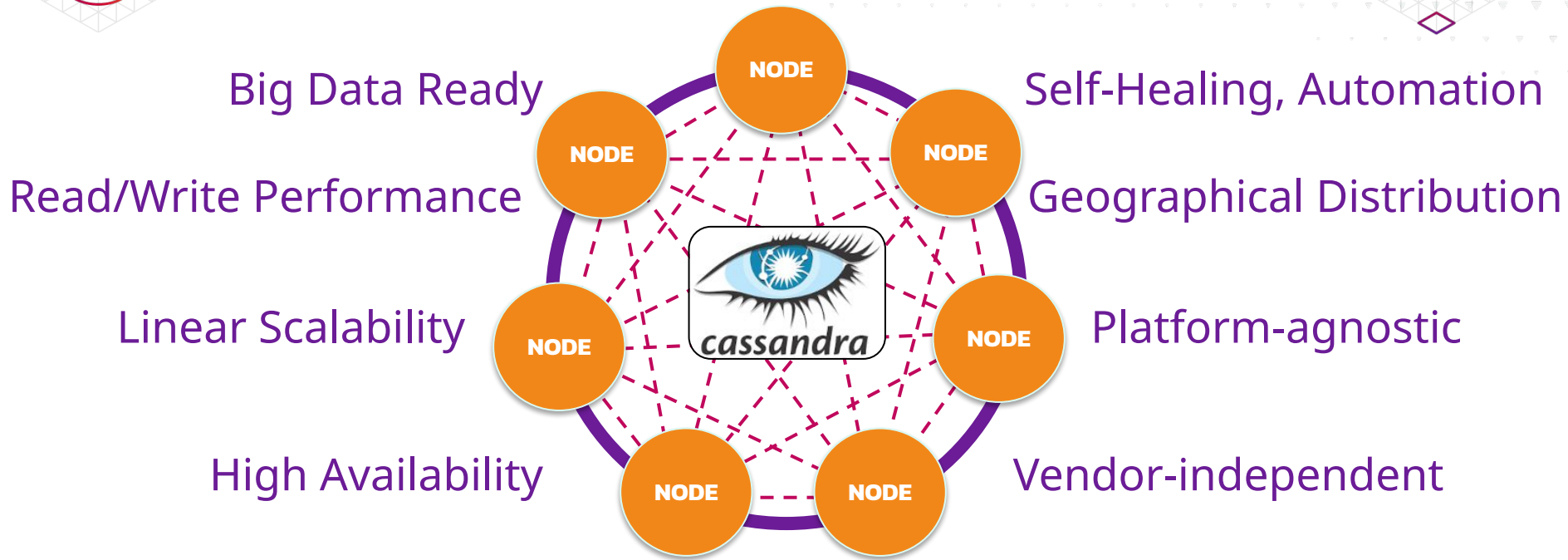
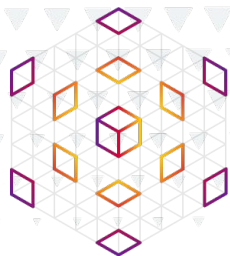
How do we make
developing apps on
Cassandra easier?

What is Apache Cassandra?





➤ Apache Cassandra





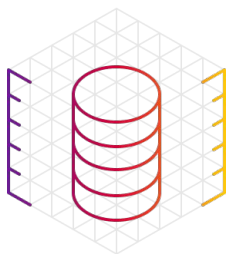
NETFLIX





What is Astra DB?





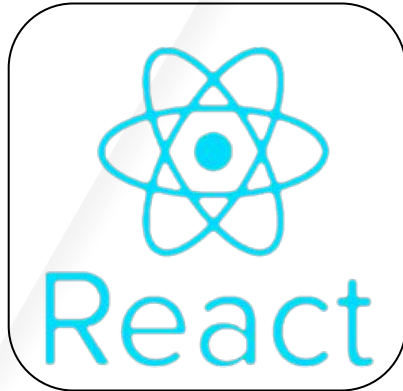
› Astra DB



- Cassandra as a Service!
- No operational overhead
- Not cloud vendor bound
- “No touch” scalability



What are we building?

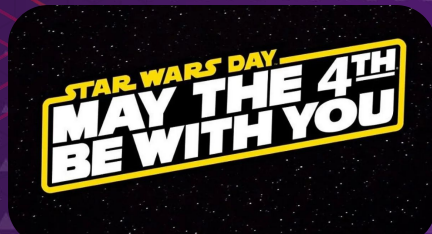
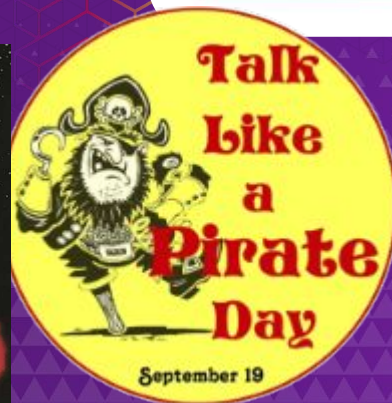
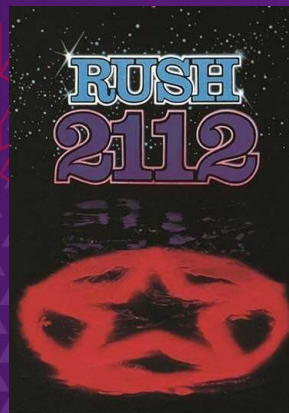


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Simple React.js app to track **Nerd Holidays!**

- Nerd Holidays for 2023
- Sorted by date, ASC
- Front end: React.js
- Datastore: Cassandra



Required npm dependencies

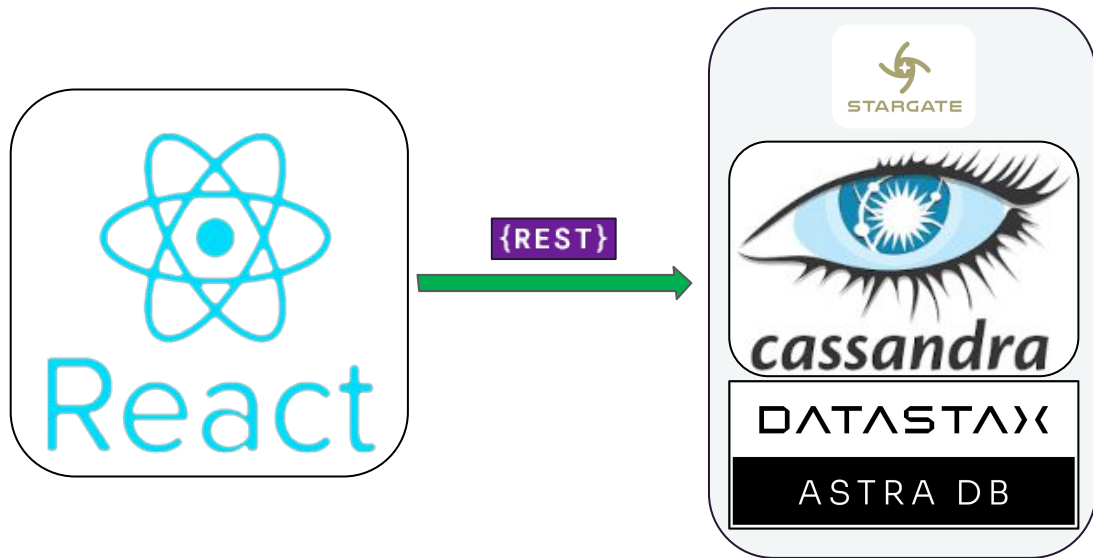
- **npm install @emotion/react**
- **npm install @emotion/styled**
- **npm install @mui/material**
- **npm install @mui/x-data-grid**
- **npm install axios**

› Data Model

```
CREATE TABLE nerd_holidays (  
    year_bucket BIGINT,  
    event_date BIGINT,  
    id UUID,  
    name TEXT,  
    PRIMARY KEY ((year_bucket), event_date, id)  
) WITH CLUSTERING ORDER BY (event_date ASC, id ASC);
```

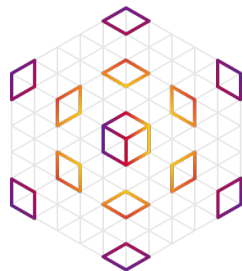
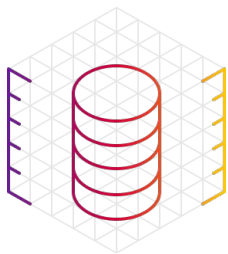


› Tech stack





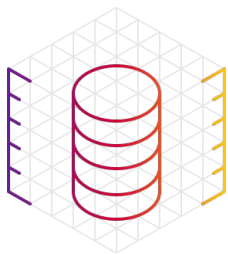
How can we connect
using Rest?



STARGATE



<https://github.com/stargate/stargate>



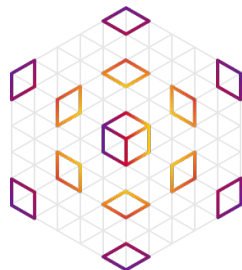
GRAPHQL API
Discoverability, Flexibility
Read only what you need

CQL API
Compatibility
It is Apache Cassandra !

DOCUMENT API
Flexible Schema
Document-Oriented usages

REST API
Stateless, Interoperability
CRUD for Cassandra

gRPC API
Performance, Interoperability
Execute cql in the fastest way



API Access

› Rest API

/api/rest/swagger-ui/



GET	/v1/keyspaces/{keyspaceName}/tables/{tableName}/rows/{primaryKey}	Retrieve rows
PUT	/v1/keyspaces/{keyspaceName}/tables/{tableName}/rows/{primaryKey}	Update rows
DELETE	/v1/keyspaces/{keyspaceName}/tables/{tableName}/rows/{primaryKey}	Delete rows
POST	/v1/keyspaces/{keyspaceName}/tables/{tableName}/rows/query	Submit queries
GET	/v1/keyspaces/{keyspaceName}/tables/{tableName}/rows	Retrieve all rows
POST	/v1/keyspaces/{keyspaceName}/tables/{tableName}/rows	Add row
GET	/v2/keyspaces/{keyspaceName}/{tableName}/rows	Retrieve all rows
GET	/v2/keyspaces/{keyspaceName}/{tableName}	Search a table
POST	/v2/keyspaces/{keyspaceName}/{tableName}	Add row
GET	/v2/keyspaces/{keyspaceName}/{tableName}/{primaryKey}	Get row(s)
PUT	/v2/keyspaces/{keyspaceName}/{tableName}/{primaryKey}	Replace row(s)
DELETE	/v2/keyspaces/{keyspaceName}/{tableName}/{primaryKey}	Delete row(s)
PATCH	/v2/keyspaces/{keyspaceName}/{tableName}/{primaryKey}	Update part of a row(s)



Hands on!



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DEVELOPERS

Simple React.js app to track **Nerd Holidays!**

- GitHub repo:



<https://github.com/datastaxdevs/>

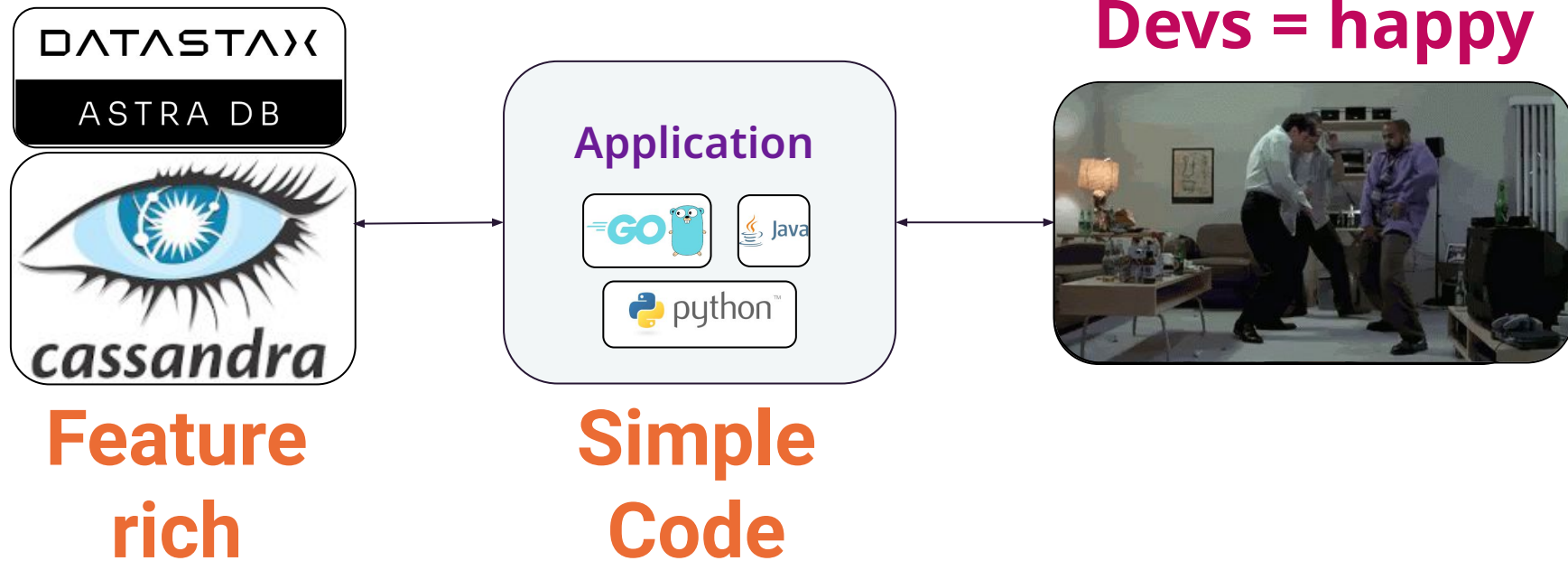
workshop-nerd-holidays



Gitpod



› The developer experience we want with **Apache Cassandra®**





Additional info



DataStax Developers

@DataStaxDevs 31.4K subscribers 769 videos

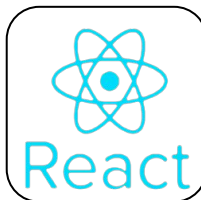
› youtube.com/@DataStaxDevs



› github.com/stargate/stargate

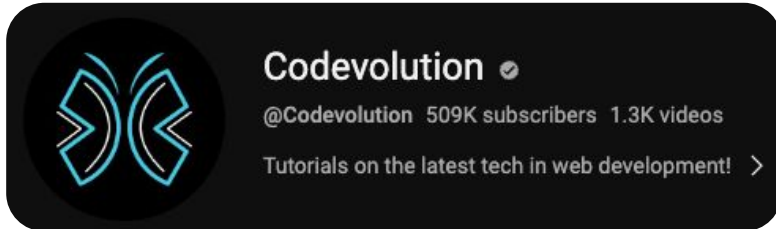


› astra.datastax.com/



› **Vishwas on Codevolution: ReactJS Tutorial**

youtube.com/@Codevolution





Need
help?



› Planet Cassandra Discord:

<https://discord.com/invite/X4xmGCnHNF>



› <https://stackoverflow.com/questions/tagged/cassandra>



› <https://dba.stackexchange.com/questions/tagged/cassandra>

DATASIX



Thank You