

PGConfDE26 Lightning Talk

University vs Real life

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Using intuitive constructs like Graph Neural Networks to describe color refinement



$$\llbracket \#_y[\varphi(\bar{x}, y)] \rrbracket^I = |\{u \in A \mid \mathcal{I}_y^u \models \varphi\}|$$

Figure: Who needs practicality if you could also prove it?

Source: <https://imgflip.com/mememtemplate/260723940/Anime-Drake>

University - Practical Database

- ▶ Index Structures:
B-Tree, **B⁺-Tree**, B*-Tree, Grid File, kd(b)-Tree, R-Tree
- ▶ Joins / writing QEP:
Block Nested Loop Join, Sort-Merge Join, Hash-Join, Index-Join
- ▶ Logging:
Undo-Logging, **Redo-Logging**, Undo/Redo-Logging

University - Practical Database

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Block Nested Loop Join, Sort-Merge Join, Hash-Join, Index-Join
- ▶ Logging:
Undo-Logging, **Redo-Logging**, Undo/Redo-Logging
- ▶ Programming:
some of the DB functionalities in C++; 300 LOC
thrown away after Semester
No Code Quality / Clean Code / Git not required

University - what to expect

▶ I don't know anything

But I want to learn.

- ▶ Why was it done this way?
- ▶ Why does it even work?
- ▶ What is this [insert any business abbreviation]?
- ▶ I can analyze it, but I couldn't write it.
- ▶ I will spend a lot of time reading documentation (:
If you don't have anything, I will cry :(
- ▶ I have no clue what is happening, show me PGConfDE /
help me find my way in this world. I am scared of other people

Work - it starts anew

- ▶ On-Prem, Docker & Docker swarm
- ▶ No-SQL DBs (Prometheus, Loki)
- ▶ Monitoring, Reporting
- ▶ **Postgres, Patroni**
- ▶ Rights Management / Compliance
- ▶ Other.. Non-technical.. people
- ▶ Implementing stuff / getting it working

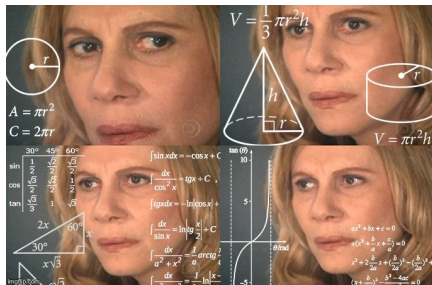


Figure: What is happening?

source: <https://i.imgflip.com/34528w.jpg>

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- ▶ GCP, AWS
- ▶ Kubernetes, Terraform
- ▶ **CNPG**
- ▶ **Barman**
- ▶ Bureaucracy (Hope you like Jira)

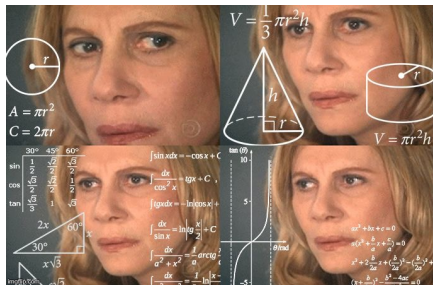


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Work - what to expect

- ▶ Have fun learning
- ▶ Have fun being overwhelmed
- ▶ Don't be afraid to ask
- ▶ Don't be afraid to appear dumb
- ▶ no more exams, but "velocity" is still there
- ▶ Even if you don't understand it (completely), you can still be the expert in the room (somehow)

Work - Joy of being the only Data Engineer / DBA / Data Guy in a team

- ▶ purging without checking the result
 - ▶ Large objects avoid JDBC purging
 - ▶ JDBC doesn't do oid-columns; `vacuumlo` deletes everything
- ▶ tables without primary keys
- ▶ meaningful primary keys? Random generated IDs!
- ▶ 1:1 relation in 2 different tables
- ▶ they are taking the foreign keys to Isengard
- ▶ "We can't do this index bcs of performance; how about I replicate it in $O(n^2)$ and have a trigger on only insert." (AI)
- ▶ SQL is evil, I don't want to touch it
- ▶ everything in the public schema
- ▶ not our data, we can't say if this ID is unique

Thank you

- .. for helping new people :)
- .. and listening.

