

Smarter use of the Django ORM with your own SQL

ORM and SQL

When is the Django ORM slow?

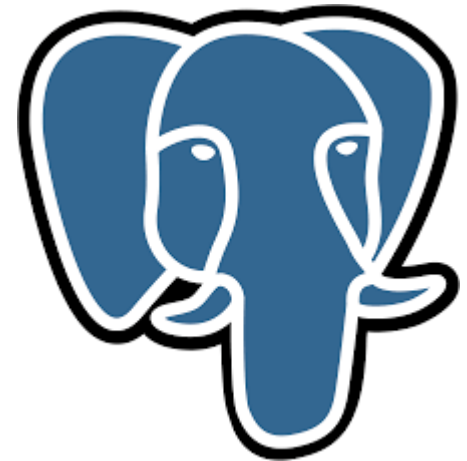
- Recursion
 - Database calls in a loop
-
- > 10 seconds
 - < .5 seconds

Recursion

- For Animal table with “mother” column, find all descendants of an animal

Database views

- Predefined subset of data that you can query as if it's a table
 - Recursive views
 - Window functions
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- PostgreSQL
 - pgAdmin



DB views in the Django ORM

- Define your view with pgAdmin
- Save the view using migrations
python manage.py makemigrations --empty
- Add the view to models.py
- Run migrations again
- Query the view with ORM methods and notice the speedup compared to Python loops

Warning

- Do not try to use the view for writing!
- Set the admin for this view to read-only!

No excuses

- “But I don’t like SQL, that’s why I use the ORM!”
- “We only have a small database, the website is not that slow”

Bonus: admin batch actions

- Want to move a lot of animals to a new location all at once?