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## A long story of genomic interface

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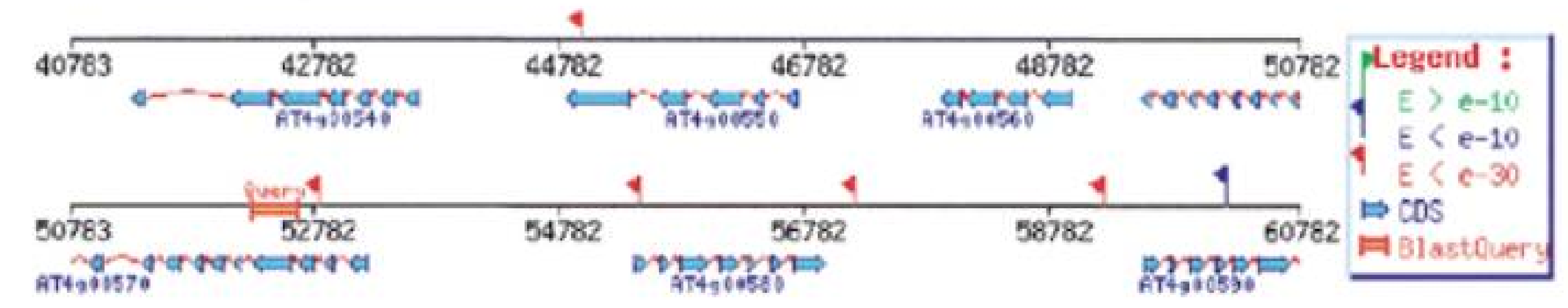
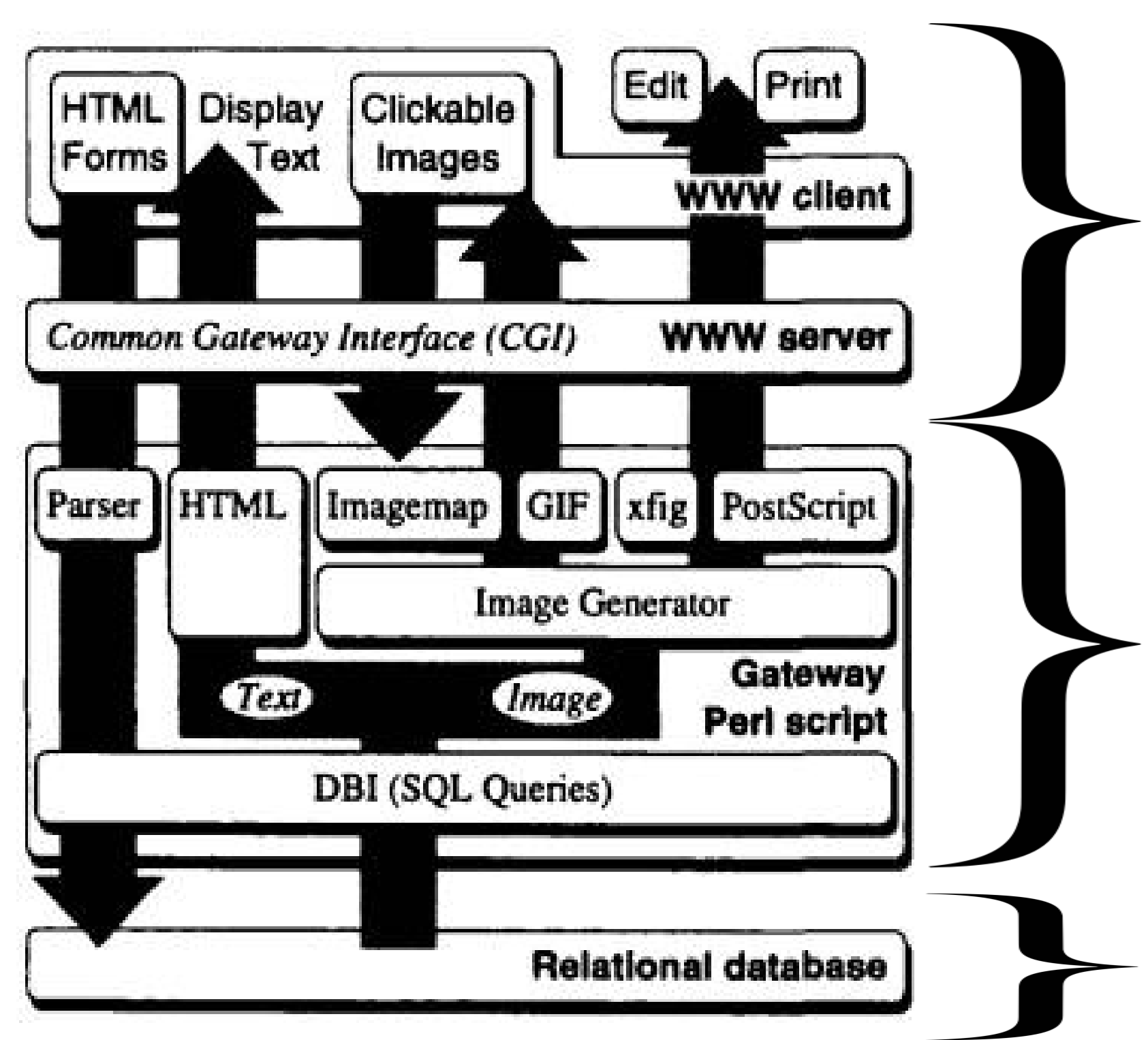
# FliesDB a long story of genomic interface.

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## 30 years ago, MICADO database : the beginnings. [ Microbial genomes ]

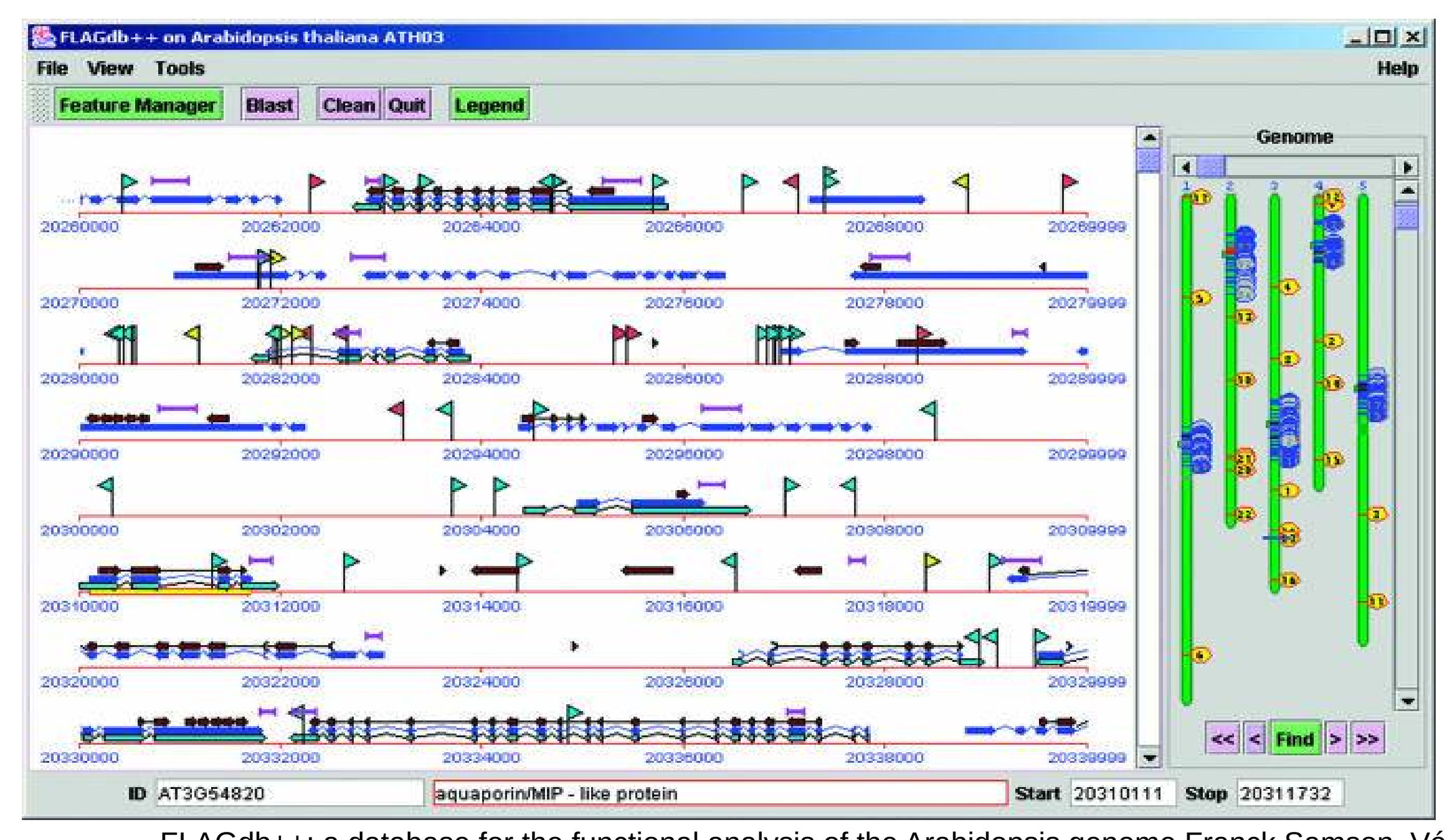


Technics for the interface : *GIF* images are generated on server to preserve the client and associated with *imagemaps* for user interactions and *clickable images*

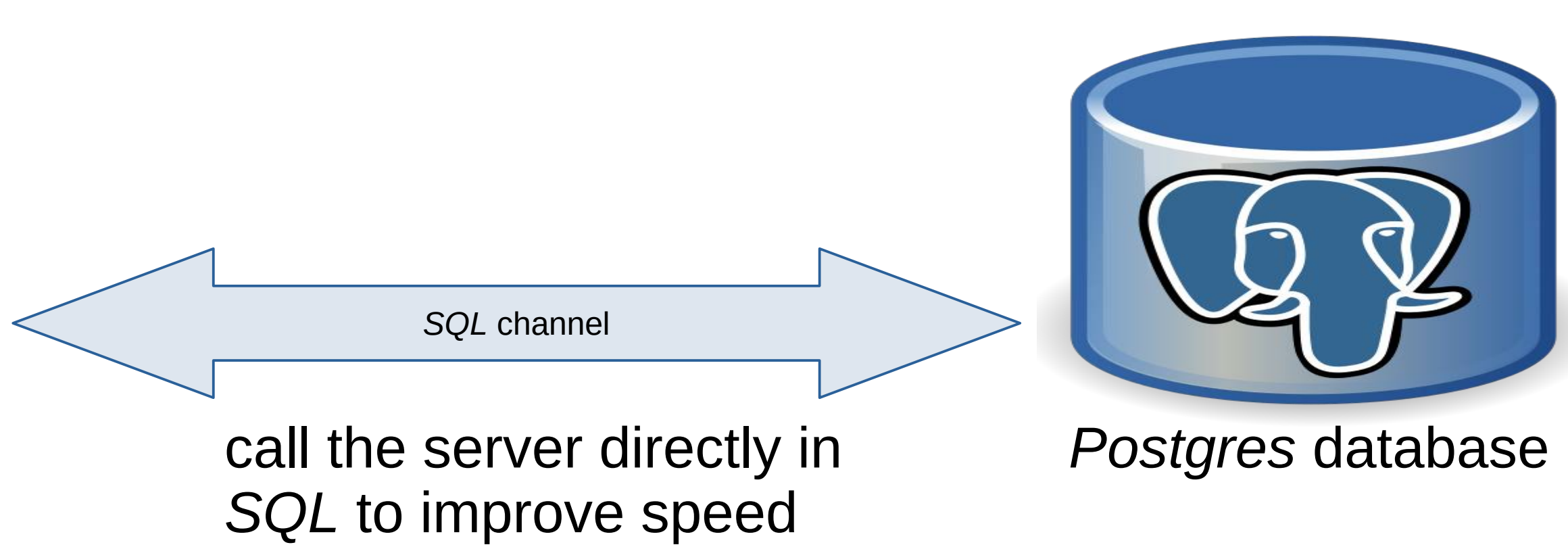
Relational database, Oracle then postgresql

Micado a network oriented database for microbial genomes. Véronique BiauDET, Franck Samson, Philippe BessiÈres. CABIOS, 1997.

## 10 years ago, FLAGdb++ database : the story continues. [ Plants genomes ]

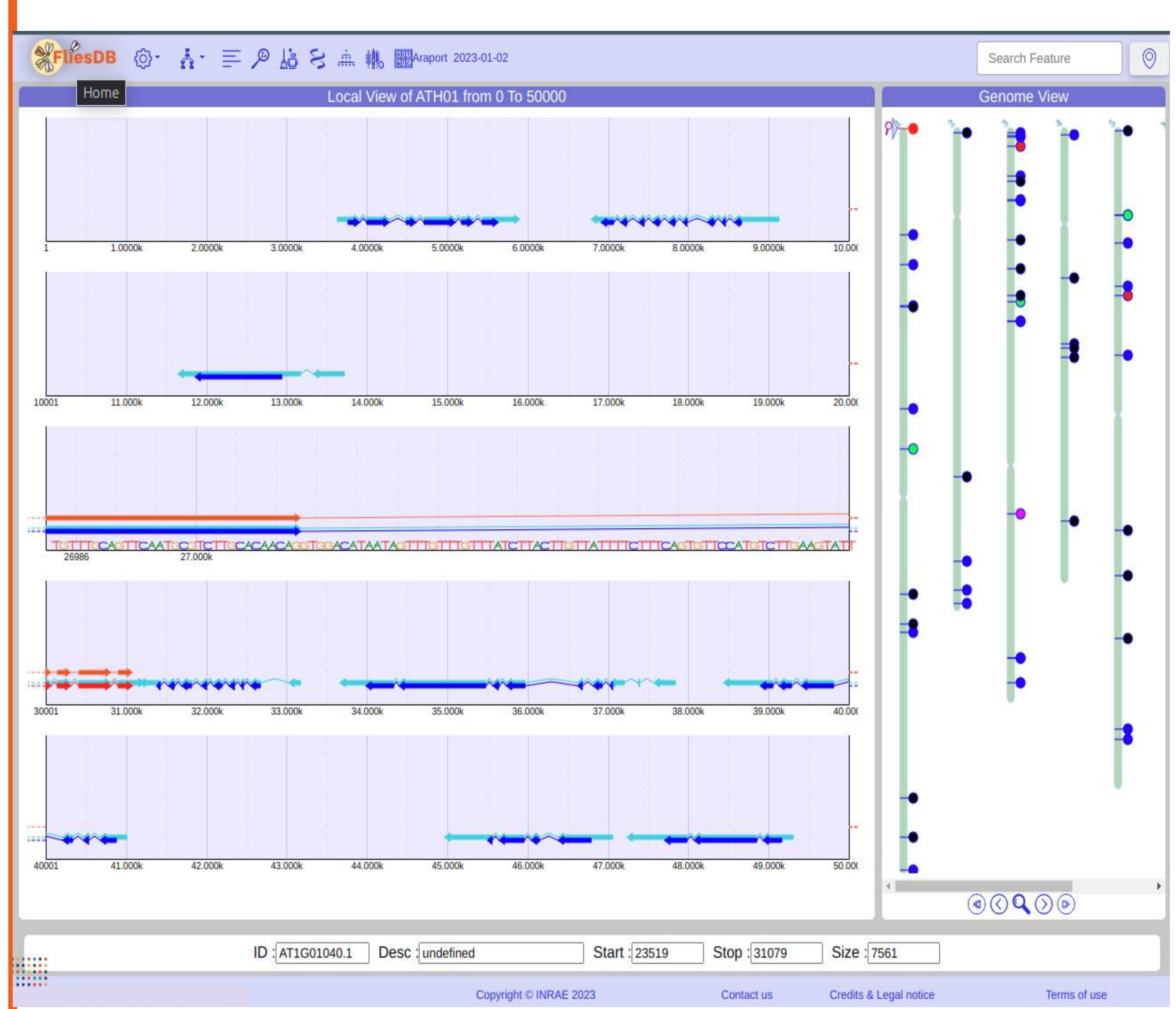


Fashion turns to the *java* language and *javaweb start* technics. The client draws the images of physical view with associated features and the genome view with chromosomes map.

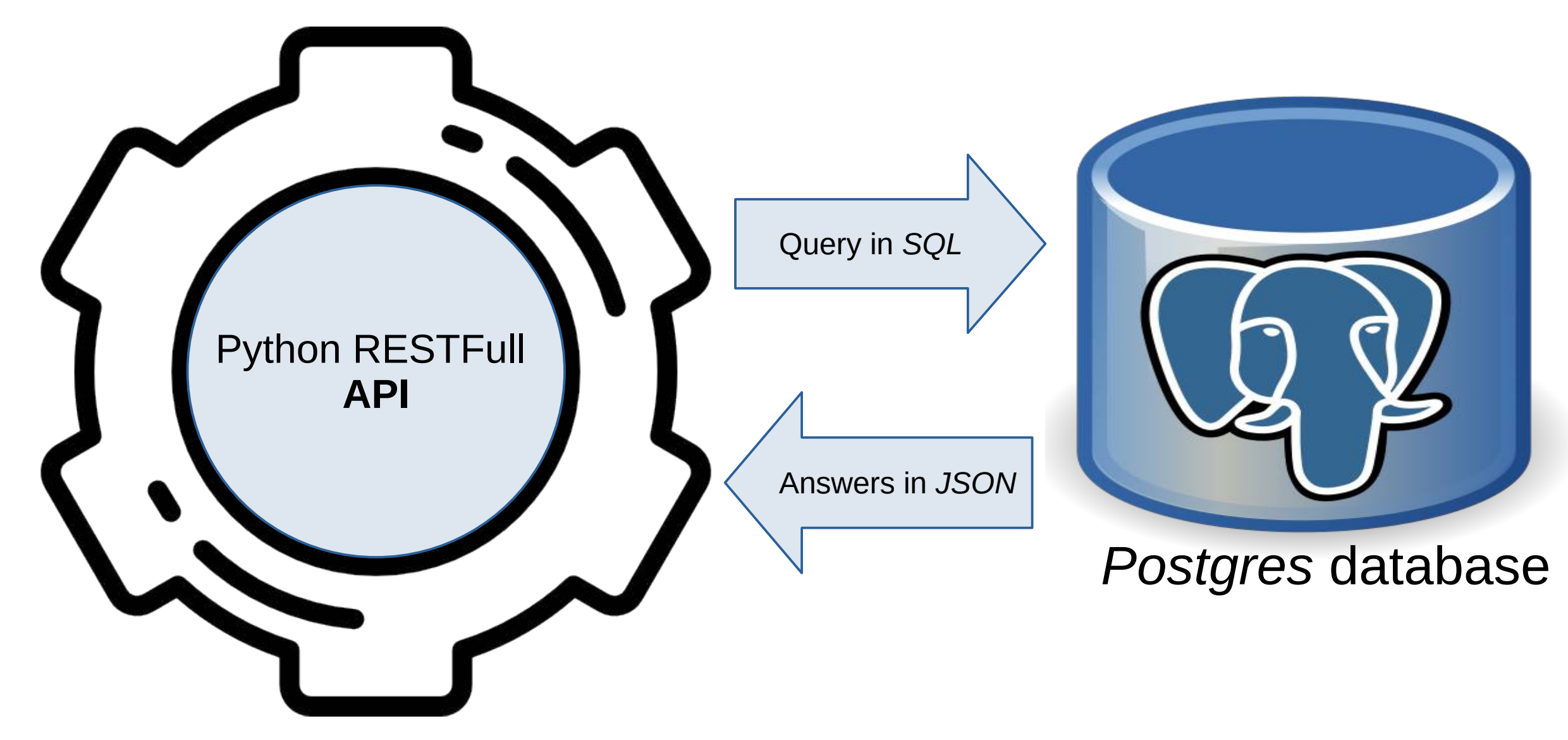


FLAGdb++: a database for the functional analysis of the Arabidopsis genome Franck Samson, Véronique Brunaud, Sylvain Duchêne, Yannick De Oliveira, Michel Caboche, Alain Lecharny, Sébastien Aubourg, Nucleic Acids Res. 2004

## now, FliesDB database : the maturity, javascript's heyday. [ Every genomes ]



Fashion turns to the *python* language. *Python* is used for the REST API. We developed the interface in full *vanilla javascript*. Calls to the API use *XMLHttpRequest*. The images were generated in *SVG* format on the client with the *d3js* library.



## What will fashion bring us in the future?

- The **WebSocket API** is an advanced technology that opens a two-way communication channel between a browser (client side) and a server. This technics can already be applied on our database.
- **WebAssembly** (Wasm) is designed as a portable compilation target for programming languages, enabling deployment on the web for client and server applications.
- **IndexedDB** for client side storage.
- We will see soon what will be the new fashion, perhaps in next JOBIM...