

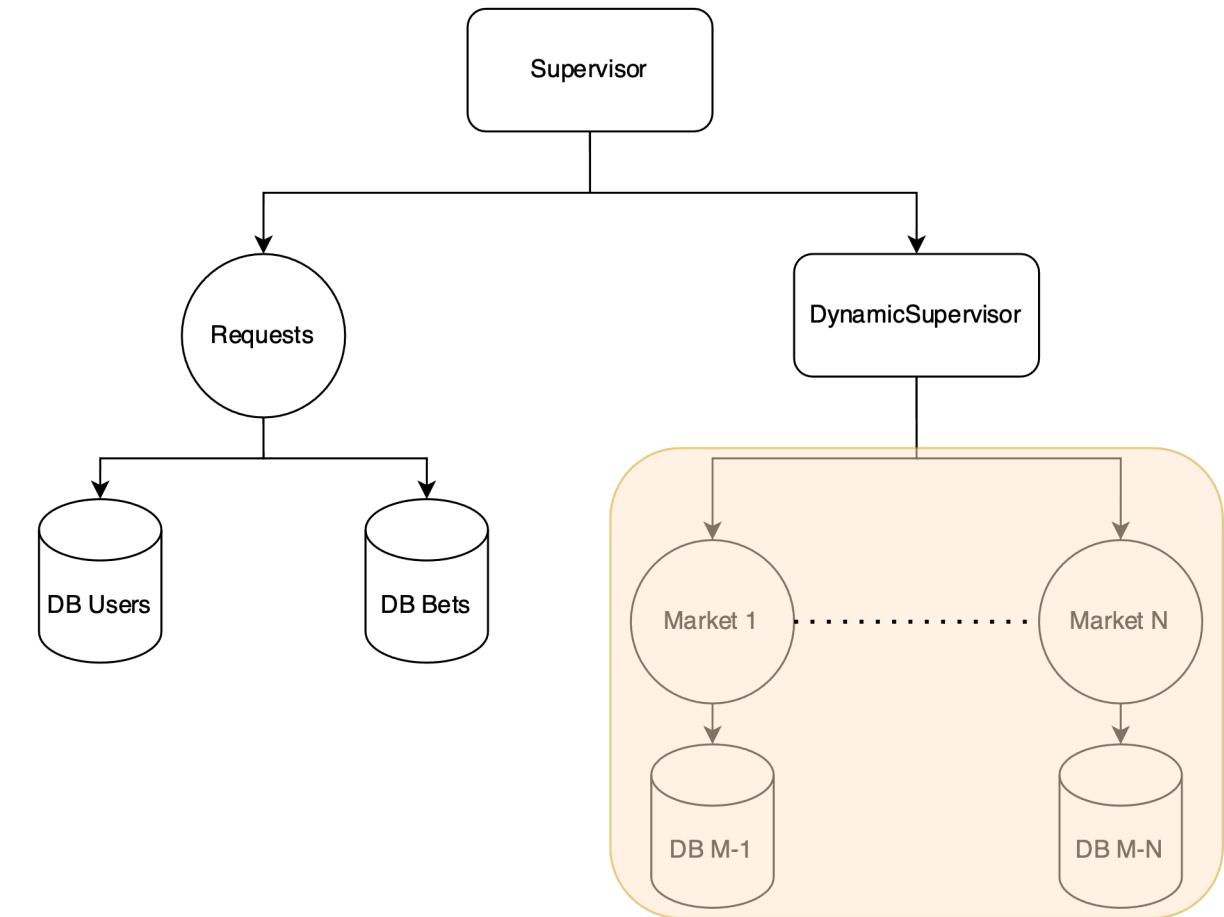
BetUnfair

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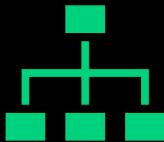
Architecture Design



Implementation



One global GenServer receiving all the requests and forwarding the market-specific ones to its corresponding GenServer.



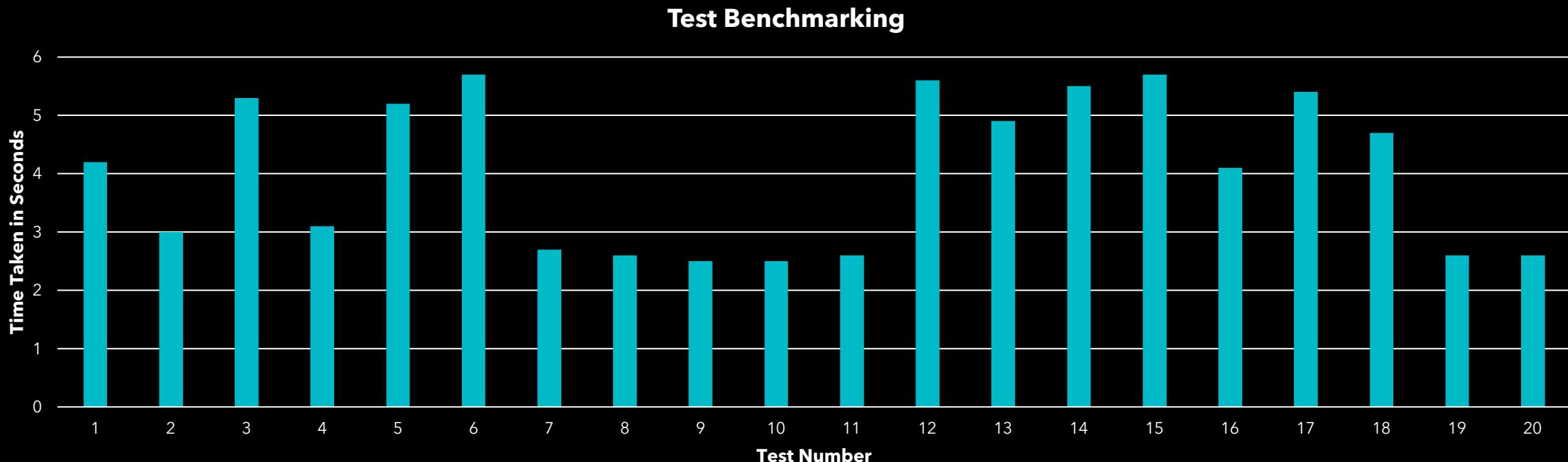
Supervision Tree to ensure fault-tolerance.



Many CubDB instances to persist and manage the data of the application, also being fault-tolerant.

Testing

- Bet Unfair tests provided.
- Simulating 6 Clients operating at the same time.
- Simulating new 1000 bets at the same time in a single market. (*Massive Concurrency Test - MCT*)
- **MCT Average Time = 4,025 seconds**



Challenges Faced



Trying to implement an efficient and useful Data Model.



Time constraints given steep learning curve.

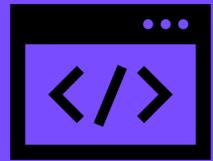


Debugging took too much time.

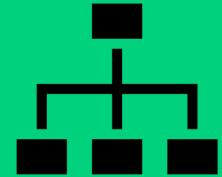


Organizing the functionality

Future Improvements



CREATING BOT OR WEBPAGE
TO HAVE A UI FOR USERS.



PARTITION OF DYNAMIC
SUPERVISORS TO AVOID
BOTTLENECKS.



IMPROVE THE DATA MODEL OF
THE APPLICATION

Conclusions

- The project was challenging as well as interesting.
- We think we really learned a lot by getting our hands into the project.
- Definitely a good experience.
- We think we can implement better solutions after facing this project.