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## Gülçin Yıldırım - Evolution of Fault Tolerance in PostgreSQL

*Friday 17 January 2020 14:15 (50 minutes)*

PostgreSQL is an awesome project and it evolves at an amazing rate. The talk will focus on the evolution of fault tolerance capabilities in PostgreSQL throughout its versions.

The talk will cover the topics listed below:

- Robustness of PostgreSQL
- PostgreSQL Fault Tolerance: WAL
- Transaction? Commit? Checkpoint?
- Replication Methods for PostgreSQL
- Physical Replication
- Standby Modes
- Streaming Replication and WAL
- Failover and Switchover
- Synchronous Commit
- Managing Timeline Issues: `pg_rewind`
- Trigger-based Replication
- Logical Decoding

There are several ways of how to look at fault tolerance. In this sense, PostgreSQL provides different means of achieving fault tolerance and dependability either out of the box solutions or using extensions depending on what are the user's priorities about their system. General fault tolerance in PostgreSQL is improving over time and I expect this trend to continue.

Gülçin studied Applied Mathematics in Yildiz Technical University in Istanbul and completed her Master's at Tallinn Technical University in Estonia. She started working with Postgres at a startup company in 2012 and was amazed how good Postgres really is! After being involved in organizing PostgreSQL conferences, giving talks and being an active community member she has been elected to PostgreSQL Europe Board in 2017 until 2019. Gülçin is interested in PostgreSQL Automation and Cloud Technologies. She resurrected the Prague PostgreSQL Meetup group and has been organizing a meetup with two talks each month as the main organizer. She is also part of Postgres Women and cares about diversity and representation of women in technical communities. She is currently on maternity leave and getting inspired by the evolution of human beings :)

**Presenter:** GÜLÇİN YILDIRIM