SQLCheck+: A SQL-Based Database-Access Performance AP Detection Tool
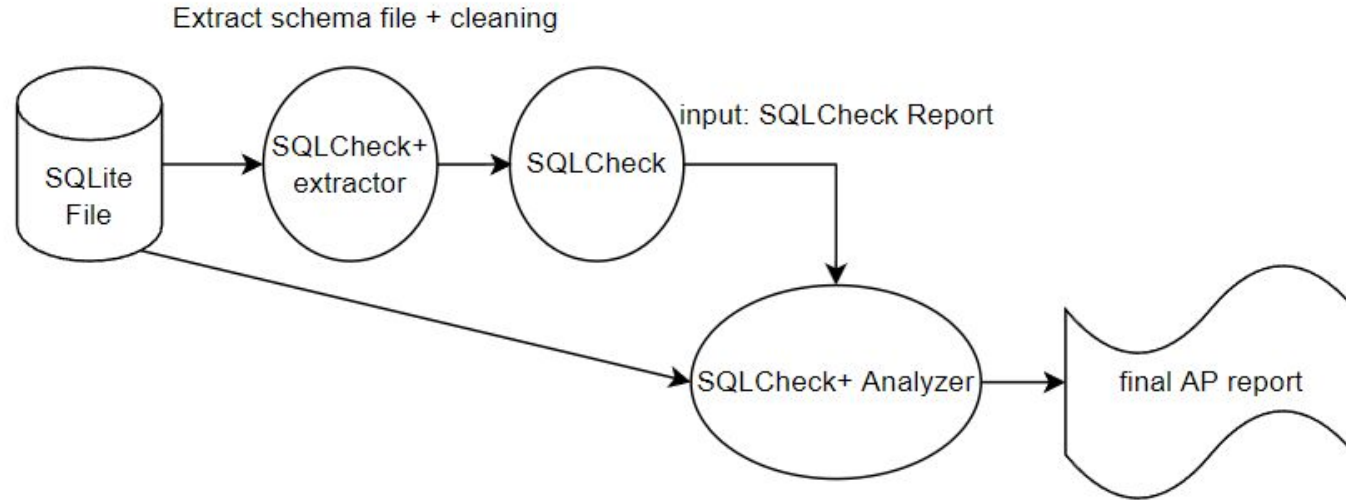
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Pitch

- Database-access performance Anti-Pattern(AP)
- Finding AP is time consuming
- SQL-based AP detection
- SQLCheck by Prashanth Dintyala, Arpit Narechania, Joy Arulraj
- Reduce false-positive rate => SQLCheck+

Workflow

Extract schema file + cleaning

SQLite File → SQLCheck+ extractor → SQLCheck

input: SQLCheck Report

SQLCheck+ Analyzer → final AP report

Done by a simple command:
   e.g.   python3 main.py ./exp/synthetic.sqlite

Multi-Value-Attribute

Tenant_ID	Zone_ID	Active	User_IDs
T1	Z1	True	U1 , U2
T2	Z3	True	U3 ; U4

(a) Tenants Table

User_ID	Name	Role	Email
U1	N1	R1	E1
U2	N2	R2	E2
U3	N3	R3	E3
U4	N4	R4	E4

(b) Users Table

- violate 1NF
- expensive to update

Demo