Work Charter for FinBench v1.0

Name of Task Force or Working Group: FinBench Task Force

Proposed or current leader: Zhihui Guo, Ant Group, guozhihui.gzh@antgroup.com

Permanent or Ad-Hoc[1]: Ad-Hoc

Date established: 16 May 2022

Charter version number: 1.0

Date charter version agreed by Board: 16 May 2022

Mission:

The FinBench Task Force aims to develop a financial benchmark called FinBench, which will be used to evaluate the functionality and performance of a graph database based on financial scenarios.

Motivation:

The LDBC Social Network Benchmark (LDBC SNB) aims to be a well-defined benchmark for evaluating graph-like data management technologies by simulating social network scenarios. However, graph technology is not only used on social networks but also widely applied in traditional finance and Internet finance. SNB can not cover the characteristics of financial scenarios; therefore, we will design FinBench.

Compared to LDBC SNB, the FinBench will differ in application scenarios, data patterns, and workloads, resulting in different schema characteristics, latency bounds, path filters, etc. FinBench needs to redesign the data pattern and workloads, including the data generation part, the query driver part, and other facilities referred to LDBC SNB. The goal is to establish a well-qualified benchmark for evaluating the performance of graph database systems in financial scenarios such as anti-fraud and risk control.

Scope of Work:

The FinBench project aims to define a graph database evaluating benchmark and develop a data generation process and a query driver to make the evaluation of the graph database representative, reliable and comparable, especially in financial scenarios.

[1] A Permanent TF/WG (like the Benchmark TF) is expected to exist continuously. An Ad-Hoc TF/WG is expected to complete some tasks and then disband or be re-chartered for a new set of tasks.

Initial members

Num	Company/Individual	Representatives
1	Ant Group (leader)	Zhihui Guo, Shipeng Qi, Heng Lin, Jim Peng
2	Pometry	Ben Steer
3	Create Link	Yan Zhou
4	StarGraph	Youren Shen
5	Ultipa	Ricky Sun, Jiansong Zhang
6	Katana	Thomas Cook
7	Intel	Parviz Perravi, Henry Gabb
8	Individual	Koji Annoura
9	Memgraph (observer)	Marko Budiselic, Benjamin Antal

Intended output

The intended output is LDBC FinBench, a precise specification for evaluating graph database query and computation performance based on financial scenarios. It is capable of independent implementations using various graph database products, intended for approval as one of LDBC Standards.

Other intended output/work product

- Software for data generation
- Software for query driver
- Reference implementation

Intended timescales

- Feb 2022: First draft of the FinBench specification
- May 2022: Discussion of FinBench Task Force in the board meeting
- Jul 2022: First Task Force draft of the FinBench specification
- Sep 2022: Second Task Force draft of the FinBench specification
- Oct 2022: Release of data generation, with reference import implementation
- Nov 2022: Release of query driver, with reference query implementation
- Dec 2022: Final Task Force draft of the FinBench specification intended for approval as a Standard.

Related Task Forces or Working Groups

- LDBC Social Network Benchmark (SNB)

References to relevant documents, standards, etc

- Social Network Benchmark (SNB)