

CS-E4780 course project evolution tables

System implementation (12 points)

Topic (Weight)	Unacceptable (0)	Marginal (1)	Acceptable (2)	Exceptional (3)
Functionality	Unable to correctly ingest or process the real tick data.	Basic functionality with frequent issues.	Most features work as intended with minor bugs.	Full functionality with no significant issues.
Performance	System is unable to process even small portions of the dataset without significant lag.	Can process part of the dataset but struggles with larger portions or real-time processing requirements.	Processes large portions of the dataset efficiently, with occasional performance dips.	Processes the entire dataset smoothly, maintaining high performance with minimal latency.
Scalability	Cannot scale to handle multiple exchanges or high event volumes.	Limited scalability; handles data from a single exchange or a reduced dataset.	Scales to handle data across multiple exchanges with moderate event volumes.	Scales effectively across all exchanges and event volumes, with capacity for further increases.
Creative explorations	Evaluation based on the balanced trade-offs in the design space and system architectures			

Final report (12 points)

Topic (Weight)	Unacceptable (0)	Marginal (1)	Acceptable (2)	Exceptional (3)
System design and Architecture	No clear description of system design	Basic design, but lacks support for real-time or complex event processing needs.	Includes design elements for real-time data processing, metadata handling, and normalization.	Well-architected system design that handles complex event processing, real-time requirements, and scalability.
Implementation explanation	Explanation of implementation is missing or very unclear.	Limited details provided, with minimal explanation of handling of tick and housekeeping events.	Clear explanation of how tick, housekeeping, and metadata are processed.	Detailed explanation, covering all implementation aspects, including event handling, normalization, and metadata usage.

Evaluation and performance	No meaningful evaluation or performance testing presented.	Basic evaluation, with limited testing on data handling for events and metadata.	Performance testing covers handling of different event types and distribution patterns.	Comprehensive performance testing, including load handling across exchanges and handling of long-tail distributions.
Academic writing	Report is poorly structured and lacks coherence.	Basic structure, but lacks clarity in discussing data handling and event distribution.	Well-structured and clear, with minor issues in presentation or analysis. Citations format is consistent.	Professionally written, clear, and logically structured, with a strong focus on dataset analysis.

Teamwork and individual contributions (2 points)

For the teamwork, each team member must elaborate the following questions as *individual contributions*.

- 1) What are the most important decisions you and your group have made about the system design?
- 2) What are the most challenging parts during the design and implementation?
- 3) What is your specific contribution in a team? How do you characterize the team's overall functionality?

Topic (Weight)	Unacceptable (0)	Acceptable (1)
Individual contributions	No meaningful individual contributions documented.	Clear description of contributions and reflection.
Teamwork	Team collaboration is ineffective, and roles are unclear.	Exemplary teamwork, with clear roles, efficient data management, and active collaboration.

For students who are working alone, the teaching staff will evaluate the work as an one-member team, using the same criteria expect for the effective team-cooperation part.

Final score mapping

There are 26 points in total (12+12+2). Their mapping to the course grades is as follows.

Grade	Points
5	24 – 26
4	19 – 23
3	15 – 18
2	11 – 14
1	0 – 10