**HW1-part2 Summary3**

**Data Aggregation System over RDBMS &NoSQL**

A data aggregation system needs system load and outstanding user experience, including low fetch latency, real-time retrieval availability.

**Architecture of DAS**

* *Web server:* Pass queries to cache server, display to user by AJAX
* *Cache server:* Handle DAS queries from front-end.
* *Cache:* Consist of MongoDB shards. Storing the primary records, server logs, analytics data and mapping between keys which DAS needs to use.
* *Analytics server*: Scheduling and execute regular task.

**Query Language**

Conditions | filters |aggregator or map-reduce

* Seeking keys are contained in conditions.
* Filters eliminate data records to meet the demands.
* Aggregator are responsible for selecting and summarizing (group) results.

**Analytics**

* Analytics system is a daemon that schedules and executes small tasks that access the DAS document store.
* Good pre-fetching strategy is vital
* Query-analysis: infrequently, performing expensive operations
* Cache-populator: store most-popular arguments until next use.

**Conclusion**

DAS provides a single interface for querying all these services, a caching layer to speed up access to expensive operation and the ability to merge records from different data services pertaining to a single primary key. The further pursuing is to support as many queries as possible supported by original surface.