Topic1: Combine sql and nosql to improve efficiency

Topic2: An algorithm to predict data feature and choose proper database

Topic3: An algorithm to collect useful business data through Facebook, GoogleMap or Twitter

Topic1

Sample: user-designed questionnaires and various type of answer

Problem: Partitioning data model into Semi-structured and relational data for SQL and NoSQL

Solution:

Multiple records set into a single record (JSON data set)

Fixed part stored as header (relational) in MySQL, Dynamic part stored as payload (key-value pairs) in MongoDB

CAP theorem guarantee consistency, availability and partition-tolerance. Consistency and availability are for relational part. Availability and partition-tolerance are for non-relational part.

Reference:

1 Combining Relational and Semi-structured Databases for an Inquiry Application

(chp%3A10.1007%2F978-3-642-32498-7\_6.pdf)

注：git里新加了几个paper, 如果合适可以再看下paper的reference,

另外还有以下链接关于提高MySQL的查询效率

SQL数据库如何加快查询速度: <http://blog.csdn.net/jking1989/article/details/6430603>

数据库大数据访问的解决方法: <http://www.studyofnet.com/news/379.html>

提高数据库处理查询速度: <http://www.cnblogs.com/surge/archive/2012/09/21/2696882.html>