SE 110: Software Engineering

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Project Proposal

Column Data Store for Data Warehouse

Faculty Supervisor

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Submitted By

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Abstract

In relational database, data will be stored in the form of records(tuples). Each tuple in the table will represent a data record. Each table can be thought as a separate data file that contains all the tuples of the table. In order to retrieve data from relational databases, all the columns are to be processed which might be expensive. An effective alternative to overcome this drawback is to process only the required columns (i.e attributes). This can be done by storing the data in the form of columns where each column(attribute) will be stored in a data file as against an entire table being stored in a data file.

This project aims at implementing a column based datastore wherein each column is stored in a different data file. One way of implementing it is to store the data in the form of key-value pairs in each file(which is yet to be decided). This way of storing data can be used to retrieve information from data warehouse where users will work on different views of data warehouse which requires only few columns to be processed. Thus, column datastore provides the desired flexibility in retrieving data.

My Role:

- 1. Design
- 2. Indexing Structure BST
- 3. CRUD Operation -Insertion
- 4. Unit Testing
- 5. Integration Testing
- 6. Review
- 7. Documentation