

Topgyal Gurung

Csci 43500-02

HW4

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No, it is not in normal form as there are anomalies and redundant data.

operational anomalies:

- Insertion
- Deletion
- Modification

Normalized schema to capture the data

The dates are repeated. There are only two different dates 7/01/2011 and 7/06/2011 with many repetitions.

There are repeated multiple MK BILL, MK NOTE, MK BOND, MK TIPS

We don't need two many digits after decimal point for prices. Two digits after decimal point will be efficient.

Normalized schema to capture the data

Primary key is cusip. We can have four different table to have data according to description. So, there will be one table for MK BILL, one for MK NOTE, one for MK BOND and one for MK TIPS. And in description we can just put date.

For date observed we can just have day and month since all are in 2011. Doing so saves space and redundancy.

These maintains data quality, eliminates redundancies and saves space.

Query

- Create database 2011data;
- Create table MKBILL(cusip primary key int, dateObserved int, description date, price1 float, price2 float, price3 float);
- Create table MKNOTE(cusip primary key int, dateObserved int, description date, price1 float, price2 float, price3 float);

- Create table MKBOND(cusip primary key int, dateObserved int, description date, price1 float, price2 float, price3 float);
- Create table MKTIPS(cusip primary key int, dateObserved int, description date, price1 float, price2 float, price3 float);