

BIBsearch System Design Document

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Bibauthor

Bibauthor has two parts, an SQL query that fetches all the pubid's in the correct order, and a for loop that goes through each pubid and outputs information about it.

The SQL query looks up all the publications written by an author. For each of those publications, it looks up the first author of that publication. It then joins this table to a table containing all the years that publications were published in. This resulting table is then sorted by first author, then year. The result of this query is put into a vector, and a for loop iterates through this vector, querying and outputting all of the needed data related to the publication.

Bibmaint

Bibmaint reads in the input line and parses it using built in C++ string search functions. The query information is placed into a vector, and the first value in the vector determines which table the update or insert is being done on. Then, the primary key is looked up in this table to determine if an update or an insert needs to be done. Then the information contained in the query vector is either inserted or updated in the database. In the case of the book update/insert query, all the references to the pubid are dropped from the wrote table and rewritten to make updating authors easier. Then, the newly inserted entry is printed by a print function, which is just very similar to the implementation of Bibauthor.

Limitations

Printing articles does not work correctly, because the "appearsin" does not get added to the list of publications to be printed.

Some output has extra whitespaces because select into does not null-terminate strings.