

CMSC 424: Database Design

Spring 2001

HOMEWORK 5

Due: At the beginning of class on Tuesday, May 8, 2001.

This homework continues the homeworks previously assigned. As before, assume that you have two files called `savings` and `checking` such that each row in those files has (SSN, Fname, Lname, Amount) fields with the same format as the test data provided for Homework 1. As per previous homeworks, you should have code that automatically creates Oracle tables using these two files.

You are to write a C program that interactively asks the user to provide the following inputs (via the command line)

1. A table name (either `savings` or `checking`);
2. A list of fields from the selected table (your program should prompt the user to enter a field one at a time till the user has no more fields to enter) ;
3. A list of atomic selection conditions w.r.t. the selected table (again your program should prompt the user to enter a field one at a time till the user has no more fields to enter). Note that an atomic selection condition is an expression of the form $t_1 \text{ } \underline{op} \text{ } t_2$ where t_1, t_2 are either attribute names or constants, and $\underline{op}$ is a comparison operator such as $>, =, <$.

Once the user has fed his input, your program should automatically execute the query

SELECT fields in item (2)

FROM table in item (1)

WHERE conjunction of atomic selection conditions in item (3)

Test your programs on the test data provided for Homework 1.