

# COMP 3311: Database Management Systems

## Tutorial 4 Structured Query Language (SQL)

Customer(customerId, name)

Deposit(depositId, *accountId*, *customerId*, amount)

Account(accountId, *customerId*)

Withdrawal(withdrawalId, *accountId*, *customerId*, amount)

**Exercise 1:** Find the customer id of the customers who deposited into both account A1 and A2.

Using intersect

Using a subquery

Using only one select statement

**Exercise 2:** Find the ids of the accounts which have been deposited into by *more than one* customer.

Without using group by

Using group by

**Exercise 3:** Find the customer id of the customers who deposited into either account A1 or account A2 but not both accounts. Use only one select statement to answer the query.

**Exercise 4:** Find the customer id of the customers who deposited the largest number of times.

Using aggregate functions

Using set membership

Name: (1) \_\_\_\_\_ Student#: (1) \_\_\_\_\_ Date: \_\_\_\_\_

Name: (2) \_\_\_\_\_ Student#: (2) \_\_\_\_\_

**NOTE:** You are highly encouraged to do this exercise with a partner.

## COMP 3311: Database Management Systems

### Tutorial 4

### Structured Query Language (SQL)

**NOTE:** Use only SQL constructs discussed in the lectures to answer these queries.

Customer(customerId, name)

Deposit(depositId, *accountId*, *customerId*, amount)

Account(accountId, *customerId*)

Withdrawal(withdrawalId, *accountId*, *customerId*, amount)

**Exercise 5:** Find all the names of the customers who have withdrawn more than 1000 dollars in a single withdrawal. If a customer made several such withdrawals, report her/his name only once.

**Exercise 6:** While an account has only one owner, it may be shared by multiple customers who deposit money into and/or withdraw money from it. Find the account id of all the shared accounts. Assume that all shared account customers have made withdrawals from the account.

**Exercise 7:** An “interesting account” is an account from which the withdrawal with the smallest amount was made. Find the account id of accounts from which withdrawals have been made, excluding the interesting accounts.

You must upload this completed exercise sheet to Canvas by **11 p.m. today**.