

CS 110 – Introduction to Information Technology
Assignment 4 – Microsoft Access
Due Date: 5 pm, Tuesday, November 1, 2005

The purpose of this assignment is to help you to gain some experience with implementing relational databases in Microsoft Access. By the end of this assignment you will be familiar with how to design and populate tables, define and use primary and foreign keys, define relationships between tables in a database and design and use queries to join tables and report on values in the database. All these concepts should lead to a firm understanding of Codd's Relational Model, which is widely used in database management in the commercial world.

1) Create a blank database called Assignment4. In this database, create tables with the following names and schemas.

Customers					
CustomerID	Name	Address	City	State	Zip Code
1	Ryan Hanes	542 Main St.	Towson	MD	21204
2	Jane Sullivan	136 Hessian Rd	Arlington	VA	22209
3	John Doe	812 Colony Dr	Charlottesville	VA	22901

Orders			
OrderID	CustomerID	ProductID	Quantity
1	3	3	35
2	1	2	2
3	2	1	1
4	1	1	1
5	3	2	4
6	3	1	1

Products		
ProductID	Name	Cost
1	Introduction to Nuclear Physics	80.00
2	Tiffany Lamp	65.00
3	Marble Coffee Table	2300.00

2) Set the following primary keys for each table: Customers Table uses CustomerID as the primary key, Orders Table uses OrderID as the primary key, Products Table uses ProductID as the primary key. You can enter these values in by hand or for each of primary key columns or you can use the 'AutoNumber' type to have Access fill in the values for you.

3) Once your tables and keys have been defined, create relationships between the tables such that Customers is related to Orders by CustomerID, and Products is related to Orders by ProductID.

4) Now add data to your tables. Add the entries shown above. In addition to these values, add yourself as a customer, and create an order for yourself. This will require adding a complete entry to the Customer Table, and adding a complete entry to the Orders Table.

5) Create a query, the result of which should contain the following information: Customer name, Address, City, State, Zip Code, Product Name, Cost and Quantity. Save the resulting query as Customer Orders Query.

Grading:

Your assignment will be graded using the following criteria:

20 pts for having correct tables with the correct primary keys

20 pts for having the correct relationships between the tables

10 pts for having the correct values in each of the tables

50 pts for having a completely correct and working query

Honor Policy:

You are to work on this assignment individually.

Submission Instructions:

Save your file as a Microsoft Access document (.mdb) and submit it via the Instructional Toolkit **before 5pm, Tuesday November 1, 2005**. Toolkit does not have an option to submit .mdb files, so please choose "Default – no extension" from the drop-down list.

Additional Resources:

If you would like to learn more about Microsoft Access, you can find a useful tutorial at <http://www.sfubusiness.ca/motmba/courses/bus756/shared/pages/tutorials.html>.

Microsoft Access is covered in your Introduction to Information Technology textbook on pages 383-429.

Microsoft Access is installed on ITC computers in the University Labs. If you don't have Access, please use the University machines.