MS Access Project

# Nota Bene:

1. This assignment is due on April 30 , 2016 by 11:55PM
2. Read all the instructions prior to beginning
3. All the rules of good design will be strictly enforced—This is to be completed in one for two ways

# The Assignment

You are to build a working Access database from the story described below. Initially the focus is going to be on designing your database structure. Remember design first then build. The quickest path to heartache is to jump right into Access and start building. Once your database is designed, you will then need to populate it with data. After the data is loaded, you will need to address all the information requirements listed below. In addition to the story and information requirements, you are also provided a flat file to help with the process. However, the flat file is incomplete meaning some primary keys might not be present. You will need to determine what these missing attributes are and make sure they are included in your working model.

## The Story

The Accounting Club (TAC) is a nonprofit organization that does accounting work for other small nonprofit organizations. Faculty runs TAC from a local university who staff the organization with their senior accounting students who need ‘real-world’ experience.

TAC has started to build enough clients to need more formal records than Microsoft Excel can provide. They have decided to build a database in Microsoft Access.

TAC has five steady clients and is staffed by four senior accounting majors. The students provide an array of services to the clients. Even though students who are seeking valuable experience complete the work, TAC charges for their services (at a reduced rate compared to what a CPA would charge.) So the payments from clients also need to be tracked.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Pay Amount** | **Payment Date** | **Service Date** | **Client\_Name** | **Client\_Street\_Addy** | **Client\_City** | **Client\_State** | **Client\_Zip** | **Client\_Phone** | **Service Code** | **Service Description** | **Service Price** | **Emp\_F\_Name** | **Emp\_L\_Name** | **Emp\_Street\_Addy** | **Emp\_City** | **Emp\_State** | **Emp\_Zip** | **Emp\_Phone** |
| $250.00 | 7 /8 /2014 | 6 /26/2014 | V\*\*\*\*\*\*G | 6\*\*\*\*\*\*\*\*\*\*\*Run | R\*\*\*\*\*\*\*\*S | \*\* | 44444-4444 | (666) 666-6666 | A | FORM990 | $250 | A\*\*\*\*A | F\*\*\*\*\*R | 4\*\*\*\*\*\*\*\*\*\*Rd. | H\*\*\*\*\*\*\*\*\*\*L | \*\* | 66666-6666 | (333) 333-3333 |
| $250.00 | 5 /12/2014 | 4 /24/2014 | G\*\*\*\*\*\*\*\*\*\*\*H | 1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Way | U\*\*\*\*\*\*A | \*\* | 11111-1111 | (999) 999-9999 | A | FORM990 | $250 | S\*\*\*\*\*\*J | Q\*\*\*\*\*\*I | 9\*\*\*\*\*\*\*\*\*Blvd | S\*\*\*\*\*\*\*\*\*E | \*\* | 88888-8888 | (111) 111-1111 |
| $250.00 | 1 /25/2014 | 1 /16/2014 | G\*\*\*\*\*\*\*\*\*\*\*\*Y | 4\*\*\*\*\*\*\*\*\*\*\*\*Court | J\*\*\*\*\*\*\*\*S | \*\* | 33333-3333 | (777) 777-7777 | A | FORM990 | $250 | G\*\*\*\*G | R\*\*\*\*\*\*\*\*\*\*N | 5\*\*\*\*\*\*\*\*\*\*Ln. | C\*\*\*\*\*\*\*\*\*O | \*\* | 77777-7777 | (222) 222-2222 |
| $250.00 | 6 /10/2015 | 5 /18/2015 | D\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*E | 2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Circle | S\*\*\*\*\*\*\*W | \*\* | 22222-2222 | (888) 888-8888 | A | FORM990 | $250 | D\*\*\*\*\*\*H | S\*\*\*\*\*\*\*H | 8\*\*\*\*\*\*\*\*\*St. | R\*\*\*\*\*\*\*\*\*\*\*E | \*\* | 19999-9999 | (000) 000-0000 |
| $200.00 | 7 /26/2015 | 7 /18/2015 | h\*\*\*\*\*\*\*\*\*\*\*F | 9\*\*\*\*\*\*\*\*\*\*\*Trail | s\*\*\*\*\*\*\*\*I | \*\* | 55555-5555 | (555) 555-5555 | C | Journal/Ledger Work | $200 | S\*\*\*\*\*\*J | Q\*\*\*\*\*\*I | 9\*\*\*\*\*\*\*\*\*Blvd | S\*\*\*\*\*\*\*\*\*E | \*\* | 88888-8888 | (111) 111-1111 |
| $300.00 | 12/25/2014 | 12/5 /2014 | V\*\*\*\*\*\*G | 6\*\*\*\*\*\*\*\*\*\*\*Run | R\*\*\*\*\*\*\*\*S | \*\* | 44444-4444 | (666) 666-6666 | D | Financial Statement Preparation | $300 | G\*\*\*\*G | R\*\*\*\*\*\*\*\*\*\*N | 5\*\*\*\*\*\*\*\*\*\*Ln. | C\*\*\*\*\*\*\*\*\*O | \*\* | 77777-7777 | (222) 222-2222 |
| $300.00 | 11/9 /2014 | 11/2 /2014 | G\*\*\*\*\*\*\*\*\*\*\*H | 1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Way | U\*\*\*\*\*\*A | \*\* | 11111-1111 | (999) 999-9999 | D | Financial Statement Preparation | $300 | G\*\*\*\*G | R\*\*\*\*\*\*\*\*\*\*N | 5\*\*\*\*\*\*\*\*\*\*Ln. | C\*\*\*\*\*\*\*\*\*O | \*\* | 77777-7777 | (222) 222-2222 |
| $200.00 | 10/10/2015 | 10/1 /2015 | h\*\*\*\*\*\*\*\*\*\*\*F | 9\*\*\*\*\*\*\*\*\*\*\*Trail | s\*\*\*\*\*\*\*\*I | \*\* | 55555-5555 | (555) 555-5555 | C | Journal/Ledger Work | $200 | S\*\*\*\*\*\*J | Q\*\*\*\*\*\*I | 9\*\*\*\*\*\*\*\*\*Blvd | S\*\*\*\*\*\*\*\*\*E | \*\* | 88888-8888 | (111) 111-1111 |
| $200.00 | 11/26/2014 | 11/13/2014 | h\*\*\*\*\*\*\*\*\*\*\*F | 9\*\*\*\*\*\*\*\*\*\*\*Trail | s\*\*\*\*\*\*\*\*I | \*\* | 55555-5555 | (555) 555-5555 | C | Journal/Ledger Work | $200 | D\*\*\*\*\*\*H | S\*\*\*\*\*\*\*H | 8\*\*\*\*\*\*\*\*\*St. | R\*\*\*\*\*\*\*\*\*\*\*E | \*\* | 19999-9999 | (000) 000-0000 |
| $300.00 | 5 /20/2014 | 5 /1 /2014 | V\*\*\*\*\*\*G | 6\*\*\*\*\*\*\*\*\*\*\*Run | R\*\*\*\*\*\*\*\*S | \*\* | 44444-4444 | (666) 666-6666 | D | Financial Statement Preparation | $300 | G\*\*\*\*G | R\*\*\*\*\*\*\*\*\*\*N | 5\*\*\*\*\*\*\*\*\*\*Ln. | C\*\*\*\*\*\*\*\*\*O | \*\* | 77777-7777 | (222) 222-2222 |
| $200.00 | 6 /10/2014 | 5 /17/2014 | G\*\*\*\*\*\*\*\*\*\*\*H | 1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Way | U\*\*\*\*\*\*A | \*\* | 11111-1111 | (999) 999-9999 | C | Journal/Ledger Work | $200 | A\*\*\*\*A | F\*\*\*\*\*R | 4\*\*\*\*\*\*\*\*\*\*Rd. | H\*\*\*\*\*\*\*\*\*\*L | \*\* | 66666-6666 | (333) 333-3333 |
| $250.00 | 1 /25/2014 | 1 /1 /2014 | G\*\*\*\*\*\*\*\*\*\*\*H | 1\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Way | U\*\*\*\*\*\*A | \*\* | 11111-1111 | (999) 999-9999 | A | FORM990 | $250 | D\*\*\*\*\*\*H | S\*\*\*\*\*\*\*H | 8\*\*\*\*\*\*\*\*\*St. | R\*\*\*\*\*\*\*\*\*\*\*E | \*\* | 19999-9999 | (000) 000-0000 |
| $250.00 | 9 /19/2014 | 9 /10/2014 | V\*\*\*\*\*\*G | 6\*\*\*\*\*\*\*\*\*\*\*Run | R\*\*\*\*\*\*\*\*S | \*\* | 44444-4444 | (666) 666-6666 | A | FORM990 | $250 | A\*\*\*\*A | F\*\*\*\*\*R | 4\*\*\*\*\*\*\*\*\*\*Rd. | H\*\*\*\*\*\*\*\*\*\*L | \*\* | 66666-6666 | (333) 333-3333 |
| $200.00 | 12/12/2014 | 11/17/2014 | h\*\*\*\*\*\*\*\*\*\*\*F | 9\*\*\*\*\*\*\*\*\*\*\*Trail | s\*\*\*\*\*\*\*\*I | \*\* | 55555-5555 | (555) 555-5555 | C | Journal/Ledger Work | $200 | F\*\*\*D | Z\*\*\*\*M | 12\*\*\*\*\*\*\*\*Ave. | O\*\*\*\*\*\*\*\*E | \*\* | 39999-9999 | (777) 777-7777 |
| $150.00 | 11/8 /2015 | 10/28/2015 | V\*\*\*\*\*\*G | 6\*\*\*\*\*\*\*\*\*\*\*Run | R\*\*\*\*\*\*\*\*S | \*\* | 44444-4444 | (666) 666-6666 | B | Checking Account Reconciliation | $150 | S\*\*\*\*\*\*J | Q\*\*\*\*\*\*I | 9\*\*\*\*\*\*\*\*\*Blvd | S\*\*\*\*\*\*\*\*\*E | \*\* | 88888-8888 | (111) 111-1111 |
| $300.00 | 11/8 /2014 | 10/21/2014 | D\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*E | 2\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Circle | S\*\*\*\*\*\*\*W | \*\* | 22222-2222 | (888) 888-8888 | D | Financial Statement Preparation | $300 | S\*\*\*\*\*\*J | Q\*\*\*\*\*\*I | 9\*\*\*\*\*\*\*\*\*Blvd | S\*\*\*\*\*\*\*\*\*E | \*\* | 88888-8888 | (111) 111-1111 |
| $250.00 | 5 /25/2014 | 5 /13/2014 | G\*\*\*\*\*\*\*\*\*\*\*\*Y | 4\*\*\*\*\*\*\*\*\*\*\*\*Court | J\*\*\*\*\*\*\*\*S | \*\* | 33333-3333 | (777) 777-7777 | A | FORM990 | $250 | A\*\*\*\*A | F\*\*\*\*\*R | 4\*\*\*\*\*\*\*\*\*\*Rd. | H\*\*\*\*\*\*\*\*\*\*L | \*\* | 66666-6666 | (333) 333-3333 |
| $150.00 | 9 /24/2014 | 9 /10/2014 | G\*\*\*\*\*\*\*\*\*\*\*\*Y | 4\*\*\*\*\*\*\*\*\*\*\*\*Court | J\*\*\*\*\*\*\*\*S | \*\* | 33333-3333 | (777) 777-7777 | B | Checking Account Reconciliation | $150 | D\*\*\*\*\*\*H | S\*\*\*\*\*\*\*H | 8\*\*\*\*\*\*\*\*\*St. | R\*\*\*\*\*\*\*\*\*\*\*E | \*\* | 19999-9999 | (000) 000-0000 |
| $300.00 | 9 /9 /2015 | 8 /31/2015 | G\*\*\*\*\*\*\*\*\*\*\*\*Y | 4\*\*\*\*\*\*\*\*\*\*\*\*Court | J\*\*\*\*\*\*\*\*S | \*\* | 33333-3333 | (777) 777-7777 | D | Financial Statement Preparation | $300 | A\*\*\*\*A | F\*\*\*\*\*R | 4\*\*\*\*\*\*\*\*\*\*Rd. | H\*\*\*\*\*\*\*\*\*\*L | \*\* | 66666-6666 | (333) 333-3333 |
| $300.00 | 9 /24/2014 | 8 /30/2014 | G\*\*\*\*\*\*\*\*\*\*\*\*Y | 4\*\*\*\*\*\*\*\*\*\*\*\*Court | J\*\*\*\*\*\*\*\*S | \*\* | 33333-3333 | (777) 777-7777 | D | Financial Statement Preparation | $300 | S\*\*\*\*\*\*J | Q\*\*\*\*\*\*I | 9\*\*\*\*\*\*\*\*\*Blvd | S\*\*\*\*\*\*\*\*\*E | \*\* | 88888-8888 | (111) 111-1111 |
| **Flat file of a data extract from a completed project.** | | | | | | | | | | | | | | | | | | |

To help you design the database that TAC requires, a snippet of the flat file they have been using in Excel is provided for you to analyze. In your discussions with TAC (many of whom have taken the AIS course you are currently taking, but are too busy to build this database) you discovered that TAC needs the database you build to meet the information requirements presented in the next section.

## TAC Database Information Requirements

The database you build should display the following features:

1. The design should be normalized to 3NF.
2. Referential integrity needs to be enforced.
3. TAC wants to be able to enter data via a data entry form for each table in the database. These forms should have concise and meaningful names. They should be visually appealing and all data entry labels are plainly apparent and highly readable.
4. Use appropriate input masks to enhance legibility of the data and ease of entering the data.
5. Use combo boxes when appropriate as well. There are attributes that are appropriate for combo boxes beyond state names.
6. As part of your validation process you should enter data into your database. Once you have an E-R diagram, show it to me. I will give you the number of rows of data you are required to enter into each table.
7. Create a query that selects all the clients that have had TAC fill out a Form 990. This query should include the client’s name and the total revenue earned from Form 990 jobs.
8. Create a query that selects all clients who have worked with a specific student worker (you choose the student worker). In the query include the client name, employee name, service types and dates of jobs.
9. Create a report for each one of the queries. Each report should have a descriptive header including company name, report title and dates the report covers. In the report footer include date of development and developer’s names (you are the developer(s)). The attribute names should have headings also.
10. **Bonus:** Create a query and associated report that calculates ending accounts receivable for each client. Assume the beginning balances are zero for all.