Final Project Report

Project for DBMS: HOB'S Consulting Firm

Topic: Database Creation and Maintenance for Consulting Firm.

Project Guide: Dr Professor Helen Uzamere

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Introduction:

The target of this project was to create a database for HOBs Consulting firm. HOBs Consulting provides services in the recruiting industry to small and midsize enterprises. The company offers Staff Augmentation, Training, and Consulting. As part of the transition from excel to Microsoft Access, we tried to make the database user friendly and practical for our client on the daily tasks.

Scope of the Project:

On this project we stablished the client's domain, logo and contact information to be adopted on the database.

1. Create and register a domain for her company. www.hobsconsulting.com

2. Create a logo: This is a signature logo created with the concept that out client can use it on the database, forms, emails invitations, reminders, publishing on social media sites and future projects.

3. Contact Information:
   Website: www.hobsconsulting.com
   Email: contact@hobsconsulting.com
   Address: 200 Park Ave, New York, NY 10166
   Phone number: 222. 333.4444

Statement of Work – Understanding the business and task at hand:

The client provided us with multiple excel spread sheets with important information about her business which were: Clients information, Candidates information and Workshops. Having that information provided by the client, our process was to segregate the spread sheets in 5 tables to better assist the creation of the database, using Microsoft Access.

After the Data Hygiene, we decided to adopt a module of tables with the following structure: Candidate, Candidate Workshop, Clients, Job Tile and Workshops.

The purpose of her agency is to recruit candidates who have relevant project management certification, and if not, they are offered the option to register for one of the company's training classes. The candidates will use a web form that interfaces with the database, candidates will provide data to include biographical, certification, location, and industry preferences and salary requirements. At the same time, clients will use a web form with the same technology to request services and keep their profiles up to date.

Database Structure Creation:

We received six spreadsheets for six workshops from Consultancy. These spread sheets had the list of all the candidates who have registered for that workshop. Each of the spread sheet had the common fields as mentioned below –

a. First Name
b. Last Name
c. Email
d. City
e. Zip Code/Postal Code
f. Job Title

These six fields were common in every spread sheet which we received from HOB's Consultancy. To make a concrete database we began creating new data/ records for Workshops offered.

The new Spread sheet was named "Workshops" which had three fields –

a. Workshop ID

b. Workshop Name

c. Workshop Date

But working in Excel Spreadsheet was not suitable when it comes to cleaning data process and running the SQL queries, this led us to start using Microsoft Access Database which came in a handy tool for Creating and Managing a database.

Therefore, we began with the most important step of Migrating/Importing the data from the Spread sheets into the Microsoft Access Database. This arranged all the data of the spread sheets into 5 tables, namely –

- Candidate Table
- Candidate Workshops Table
- Clients Table
- Job Title Table
- Workshop Table

We also created Two Forms and One Sub form, namely –

- Candidate - Form
- Clients - Form
- Workshop - Sub Form

Relationship established between Tables:

1: N i.e. One -To-Many Relationship was established between the 5 tables named above. We had to make sure that each table had a unique Primary Key and subordinate Foreign Key. We also created extra tables where required to join them to on another. The most looked after concern was to see that all the tables had relevant information which were fields used to join the tables in a One-To-Many Relationship easy.

The 5 tables are as below:

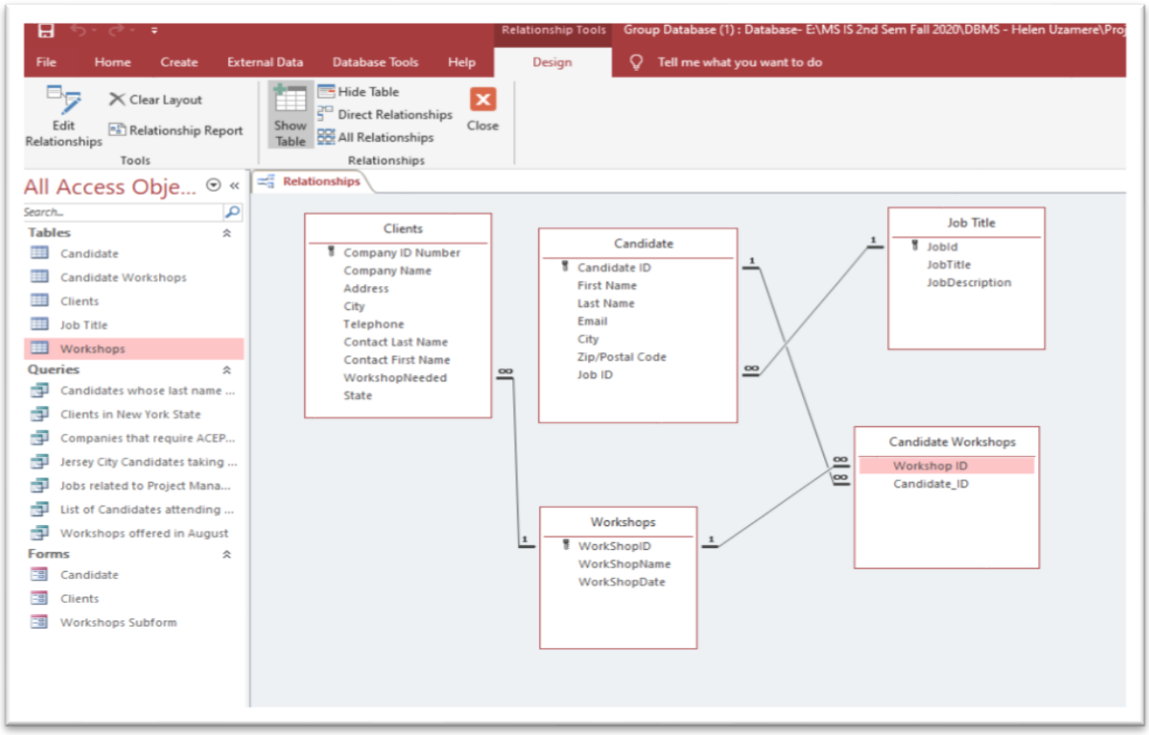
- **Candidate Table** - Contains candidate names, contact information, job ID, and candidate ID (primary key)

- **Clients Table** - Company names, addresses, the workshop required by each, and their company ID (primary key)

- **Workshop Table** – Time and Date of the Workshop.

- **Job Title Table** - Reference for Job ID from candidate table to see candidate's title and job description.

- **Candidate Workshops Table** - Candidate IDs and workshops they are registered to.



After successfully establishing the relationships between tables we ran total 7 queries in SQL using Microsoft Access Database framework. Some of the queries are as below –

Query 1. Show the records of candidates whose Last Name begins with 'M'

SQL: SELECT Candidate. [Candidate ID], Candidate. [First Name], Candidate. [Last Name], Candidate. Email, Candidate. City, Candidate. [Zip/Postal Code]

FROM Candidate

WHERE (((Candidate. [Last Name]) Like "M*"));

Records Displayed: 8 Records

Query 2. Show the list of clients in New York City.

SQL: SELECT Clients. [Company ID Number], Clients. [Company Name], Clients. Address, Clients. City, Clients. Telephone, Clients. [Contact Last Name], Clients. [Contact First Name]

FROM Clients

WHERE (((Clients. State) ="NY"));

Records Displayed: 13 Records

Query 3. Show the record of the companies that require either ACEPMI or SHFR certifications.

SQL: SELECT Clients. [Company ID Number], Clients. [Company Name], Clients. Address, Clients. City, Clients. Telephone, Clients. [Contact Last Name], Clients. [Contact First Name], Clients.WorkshopNeeded, Clients. State

FROM Clients

GROUP BY Clients. [Company ID Number], Clients.[Company Name], Clients. Address, Clients. City, Clients. Telephone, Clients. [Contact Last Name], Clients.[Contact First Name], Clients.WorkshopNeeded, Clients. State

HAVING(((Clients.WorkshopNeeded)="SHFR" Or (Clients.WorkshopNeeded)="ACEPMI"));

Records Displayed: 7 Records

- There are 4 more queries run in the database using the same format.

Forms Creation: Another important aspect of this project was establishing connection between the Front-End Website portal of HOB's Consulting and the Access Database. This was done using forms. Whatever information was filled in the forms by the candidates and clients using the forms on the website were retrieved in back end maintained in Microsoft Access.

The database had two Main Forms – Candidates and Clients & One sub form – Workshops.

- The Candidate Form is linked with Workshop sub form – This displays Records for each of the 94 candidates showing their personal information.
- Workshop sub form on each record to show all the workshops each candidate is registered.
- Client Form - 20 records of each Company and their information.

  The Form has "Save" and "Print" buttons to increase functionality for the users.

Conclusion: The scope of this project undertaken by us was to create and maintain a database using the information provided by our Customer HOB's Consulting. We a team of 5 students studying Database Management Systems under the guidance and learning of Dr Professor Helen Uzamere accomplished the task.

HOB's Consulting will now use this database to keep records of the Candidates and Clients who are willing to use services offered by them.