# Introduction to Microsoft Access

Table of Contents

[Introduction to Microsoft Access 1](#_Toc494095151)

[Introduction 3](#_Toc494095152)

[Create a database from scratch 3](#_Toc494095153)

[Basic Layout of a Database 3](#_Toc494095154)

[Tables 5](#_Toc494095155)

[Planning your Table 6](#_Toc494095156)

[Create a table with Table Design 6](#_Toc494095157)

[Change the data type of a field 7](#_Toc494095158)

[Importing Data 8](#_Toc494095159)

[Forms 11](#_Toc494095160)

[Create a Form 11](#_Toc494095161)

[Editing your form 12](#_Toc494095162)

[Queries 17](#_Toc494095163)

[Create a query 17](#_Toc494095164)

[Reports 20](#_Toc494095165)

[Create a Report 20](#_Toc494095166)

Presented by:

ITS Training Services

Doris Selva 77270

Benjamin Virzi 77635

## Introduction

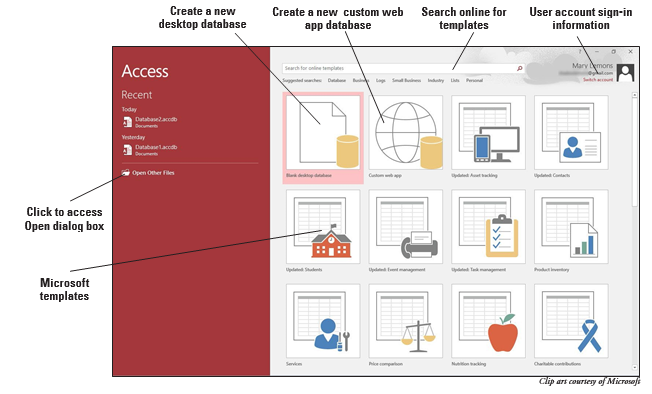
A database is a computer program for storing information in an easily retrievable form. It is used mainly to store text and numbers (for example, the Library catalogue, which includes the author, title, class number and accession number for each book).

When setting up your own database, it is important to plan its use in advance. This is particularly important if you are setting one up which will be used by other people. Among the things which you should consider are:

* What information you will need to store
* What information you want to get out
* Who the data is intended for and how other users will use it
* Who is allowed to add or change data

## Create a database from scratch

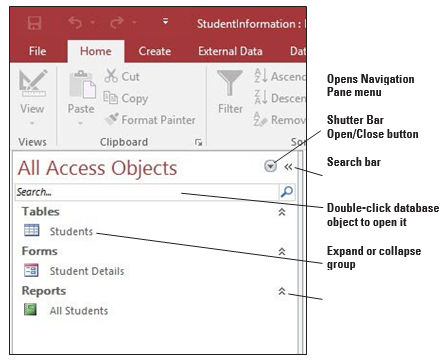
1. Select **Blank desktop database**



On the next screen, a **Navigation Pane** appears on the left. This controls navigation within a particular database. A database is consisted of several objects, grouped into a single file:

### Basic Layout of a Database

* **Tables** - hold the raw data
* **Forms** - user-friendly layouts to display data on the screen (either in a table or from a query)
* **Queries** - extract part of the raw data to produce dynasets - dynamic sets of data which can change each time the query is run (to reflect any changes to the data in the tables)
* **Reports** - output files, ready for printing
* **Pages** - for creating/editing WWW pages
* **Macros** - lists of commands to perform particular functions
* **Modules** - programs which expert users write in a programming language called Access Basic to perform tailor-made functions not generally available



## Tables

Tables store your data. For example, a list of employees/employee information (e.g. Name, ID, Department)

Data types Definition:

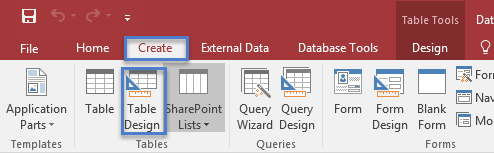
|  |  |  |
| --- | --- | --- |
| **Data Type** | **Example** | **Description** |
| Short Text | Last Name: D’Amato Street: 1234 Landau Ave. | The most common data type for fields. Can store up to 255 characters of text, and numbers (or a combination of both). |
| Long Text | Comments: Student will make monthly payments on the 15th of each month of  $247. | Stores large amounts of text—up to 1 gigabyte (GB)  —but only the first 64,000 characters of text, and numbers (or a combination of both) will be visible on the screen. Approximately 18 pages of data |
| Number | Age: 19  Grade: 95.5 | Stores numeric data that can be used in mathematical calculations. |
| Date/Time | Birthday: September 5, 1972 | Stores date and/or time data. |
| Currency | Registration Fee: $50.00 | Stores monetary data with precision to four decimal places. Use this data type to store financial data and when you don’t want Access to round values. |
| AutoNumber | Student ID: 56 | Unique values created by Access when you create a new record. Tables often contain an AutoNumber field used as the primary key. |
| Yes/No | Insurance: Yes | Stores Boolean (true or false) data. Access uses 1 for all Yes values and 0 for all No values. |
| OLE Object | Photo | Stores images, documents, graphs, and other objects from Office and Windows-based programs. |
| Hyperlink | Web addresses | Stores links to websites, sites or files on an intranet or Local Area Network (LAN), and sites or files on your computer. |
| Attachment | Any supported type of file | You can attach images, spreadsheet files, documents, charts, and other types of supported files (up to 2 GB per record) to the records in your database, much like you attach files to email messages. |
| Calculated | FullName: John Derenzo | Stores an expression based on two or more fields within the same table.  Example using concatenation operator (&): First: John  Last: Derenzo  FullName stored as: [First]&” “&[Last] |
| Primary Key |  | This is a specific field that uniquely identifies each record in the table. |
| Foreign Key |  | In the context of relational databases, a foreign key is a field (or collection of fields) in one table that uniquely identifies a row of another table or the same table. In simpler words, the foreign key is defined in a second table, but it refers to the primary key or a unique key in the first table. |
| Flat file database |  | In a flat system (also known as a flat-file system), all the data is lumped into a single table. |
| Relationship database. |  | The relational system (or relational database) uses as little storage space as possible by cutting down on the duplicated (also known as redundant) data in the database. |

### Planning your Table

1. What is the end goal of your database?
2. What information you will need to store
3. Are you going to need more than one table?
4. What is the datatype each field?
5. What kind of field properties do you want for each field?
6. What information you want to get out
7. Who the data is intended for and how other users will use it?

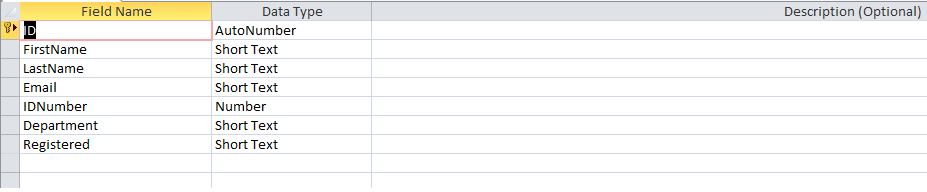
### Create a table with Table Design

1. Select **Create** > **Table Design.**

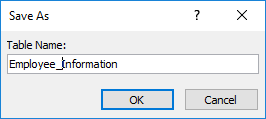
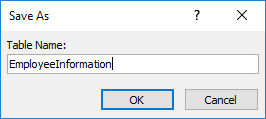


1. In the new table, for the first field, enter a field name and a data type.

Note: Access does not process spaces like word and excel does. It you would like to separate words use an underscore “\_”.



1. Select the **Save** icon, and name the table. (Employee Info)

When you try to close the database, if you have not saved your work on a table, Access prompts you to save it. Alternatively, at any time, select Save.

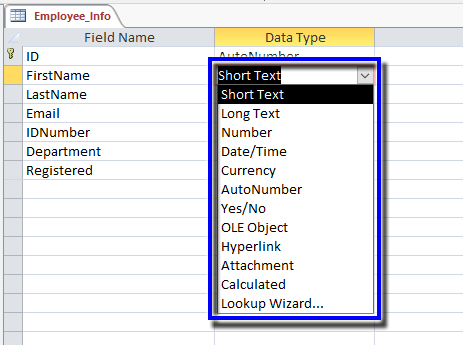
Note: Microsoft Access does not Autosave your progress like Word or Excel. I would recommend that you save as often as possible.

### Change the data type of a field

When you add a field by typing data into it, Access sets the field’s data type based on its contents. View the data type on the Fields tab, under Data Type.

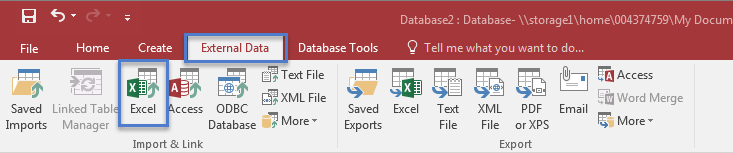
To change the data type:

1. Select the field.
2. On the Fields tab, open the Data Type list and select a data type.

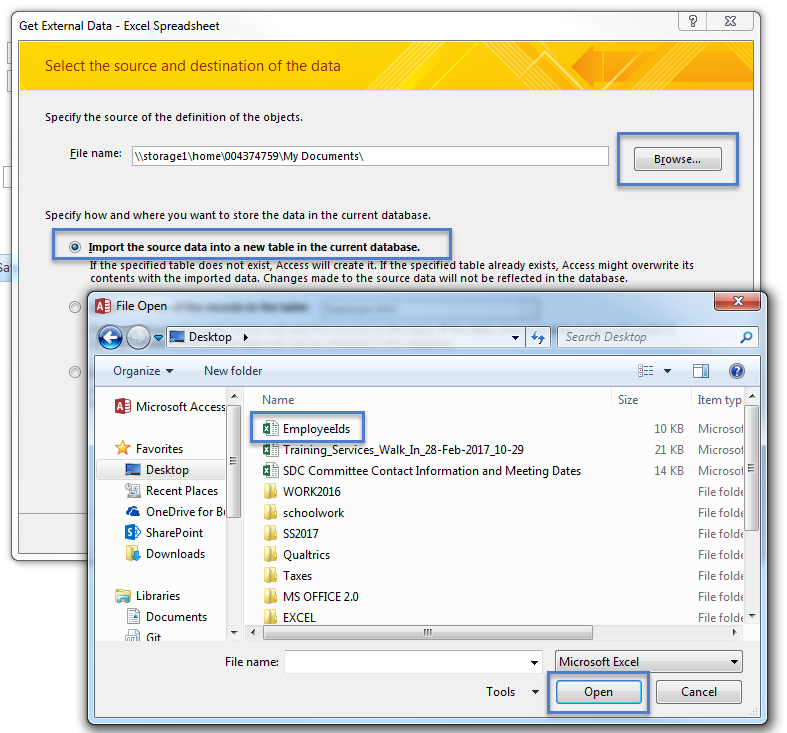


### Importing Data

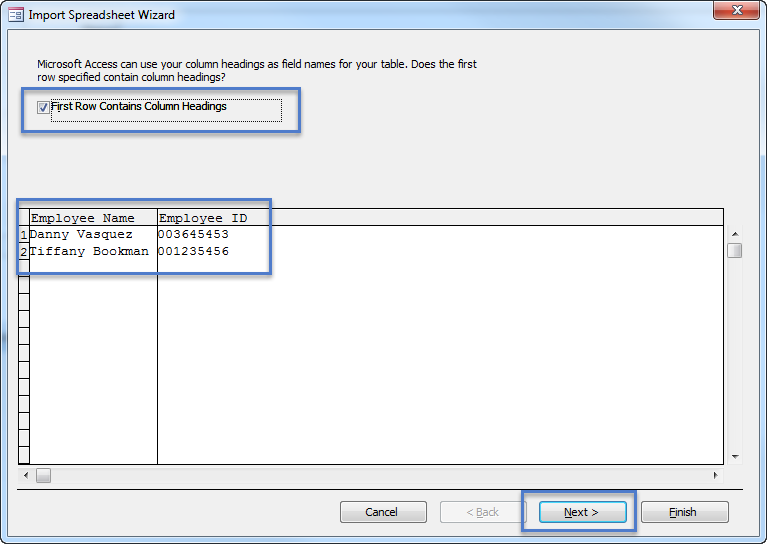
1. Select **External Data**,and select **Excel**.
   1. You must have an Excel document saved to upload.



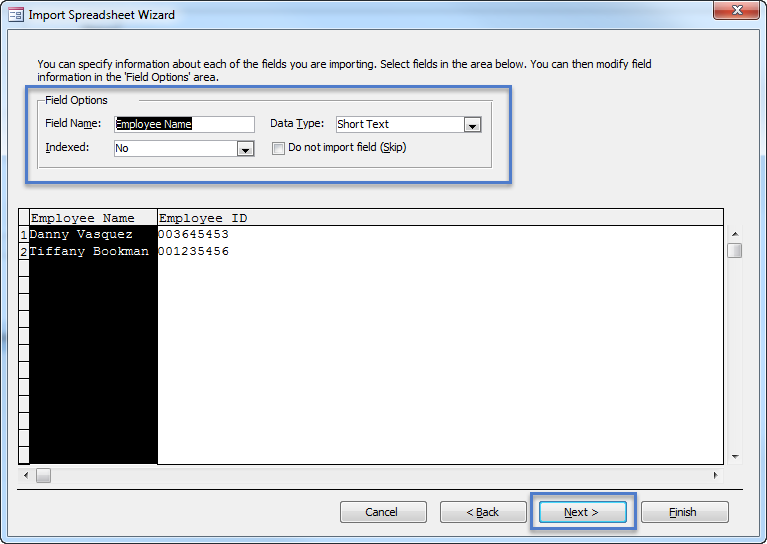
1. The **Get External Data** page appears.
2. Select **Browse**, then select the file you want to open.
3. Select the **Import the source…** and select **Ok**.



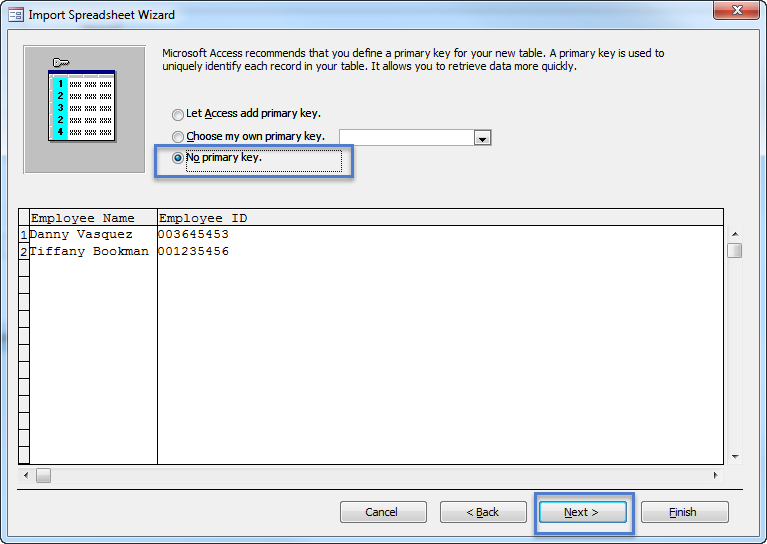
1. The **Import Spreadsheet Wizard** will display with the information.



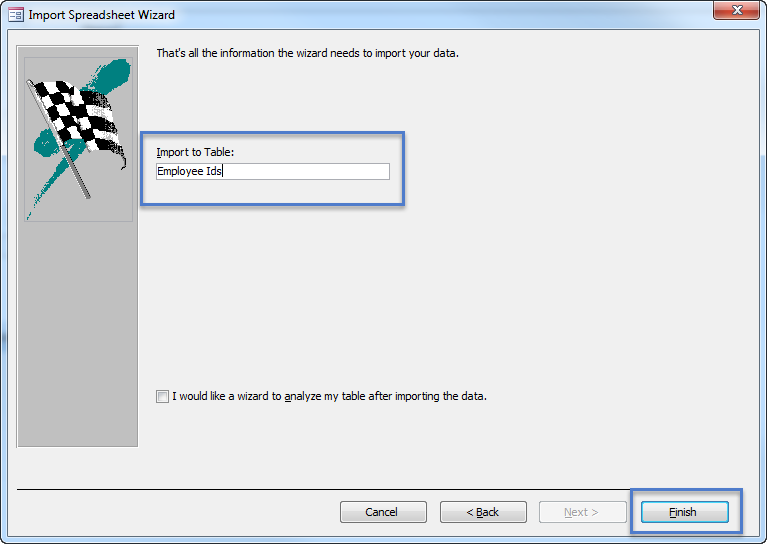
1. Edit the field options and select **Next**.



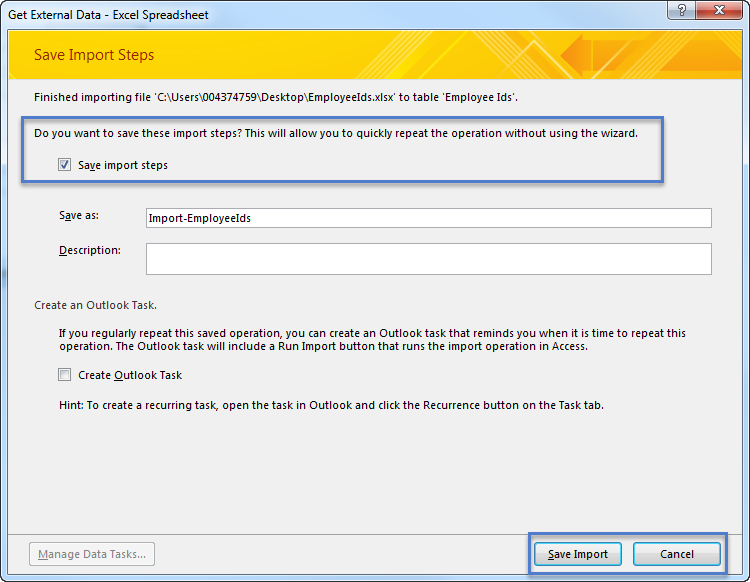
1. Next, select **No primary key**, then select **Next**.



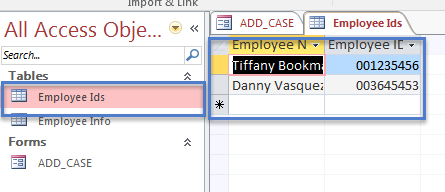
1. Name the table, and select **Finish**.



1. Lastly, you can save the import method or select cancel.



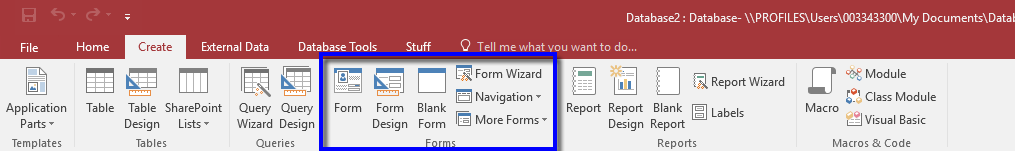
1. Your table will be displayed under **Tables:**



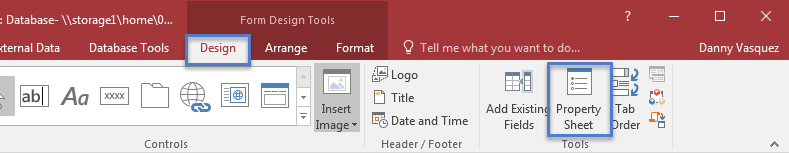
## Forms

### Create a Form:

1. Open the desktop database in which you want to add a navigation form.
2. On the **Create tab**, in the **Forms** group, select **Form Design** or any that you would like to choose.



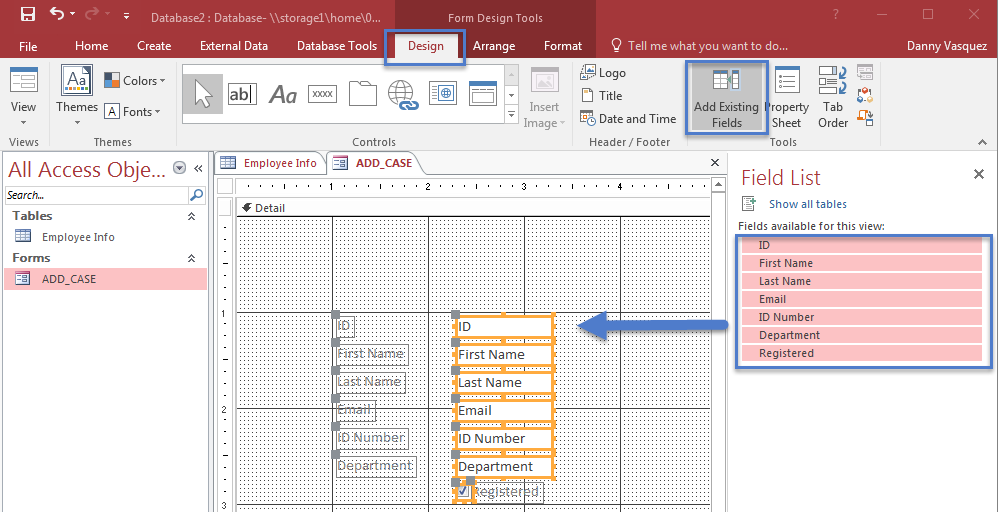
1. Select **Form Design** located under **Form Design Tools** to modify your Form.



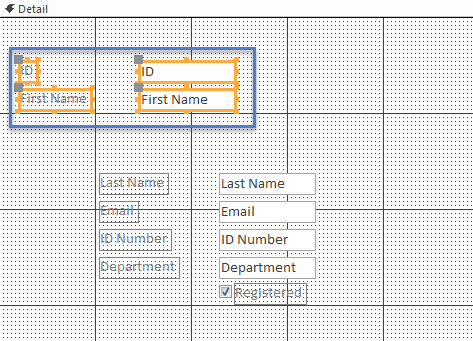
### Editing your form

#### Fields

1. Select **Add Existing Fields** under the **Design** tab when in Design view.
   1. To select all of the fields: Select the first field, then hold down **Shift** on your keyboard and select the last field.
2. Next, **drag and drop** the fields into the form.

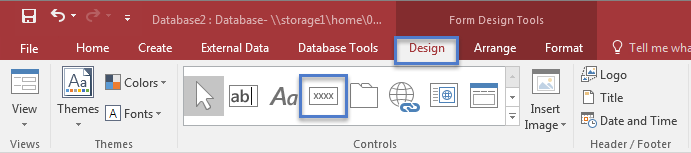


1. Select the fields you would like to rearrange or once you have select the fields use the arrows on your keyboard to move the fields.

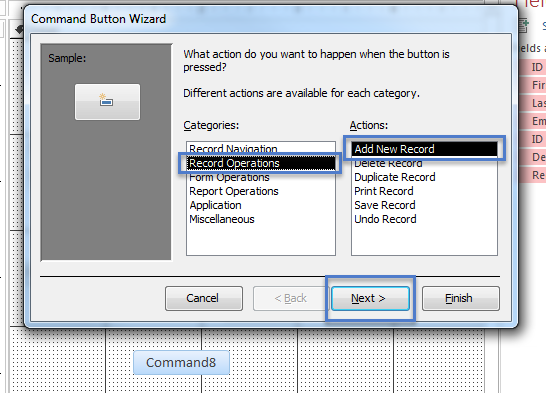


#### Command Buttons

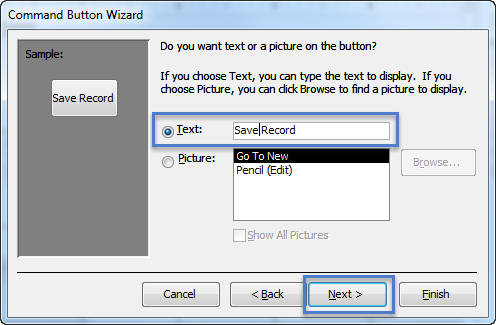
1. Select the **button** icon located in the controls field.
2. Then, hover over the form and select where you would like to place the button.



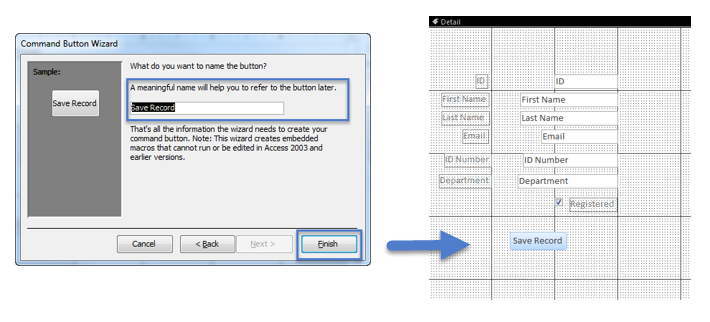
1. The **Command Button Wizard** will display
2. Select **Record Operations or whatever you are looking for,** and select the appropriate action you are looking for.
3. Select **Next**



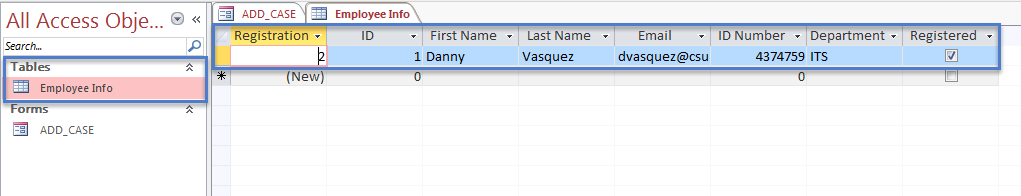
1. Select **Text** or **picture** then name button and select **next.**



1. Name the button for reference and select **Finish.**



1. Next Select **View,** your form will display.
2. Enter data and select **Save Record.**
3. The record will be added to the **table associated with the form.**
   1. **To view:** Select the table, and the record will display.

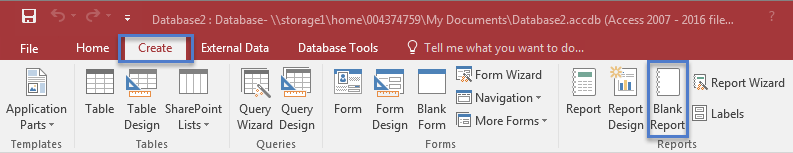


## Reports

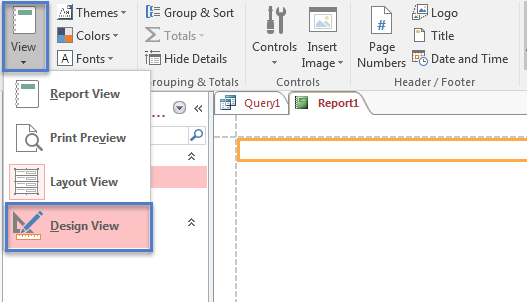
### Create a Report

View, format, and summarize the information in your database with reports.

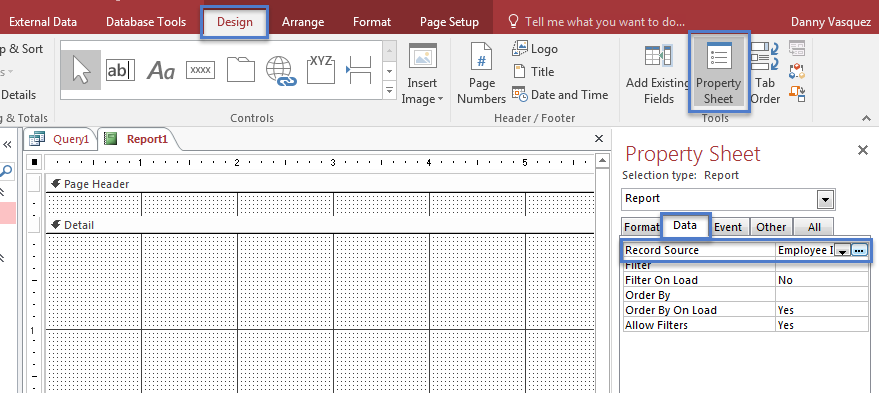
1. Select **Blank Report** under the **Create** tab.



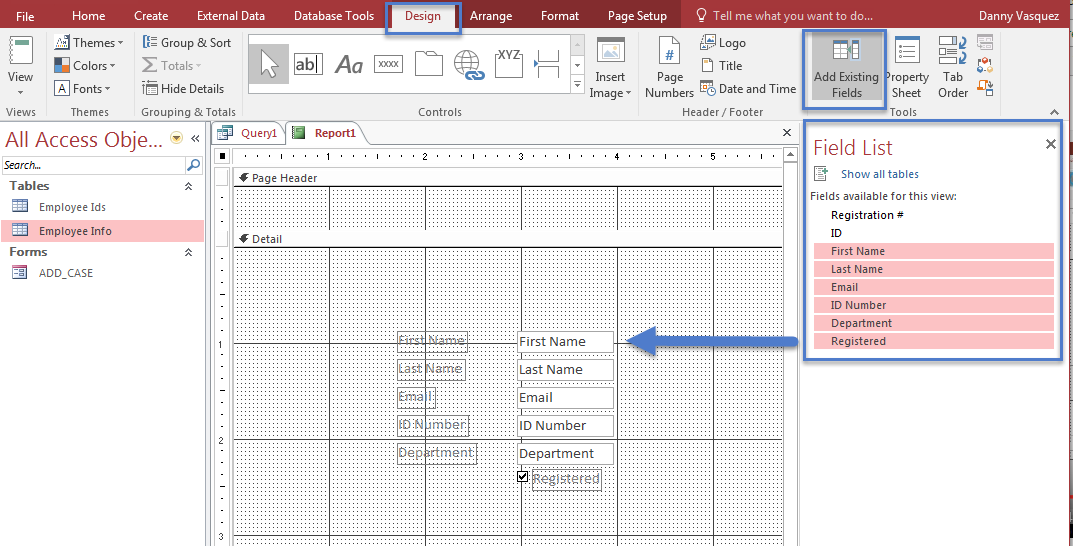
1. Select the **View dropdown,** then select **Design View.**



1. Select **Design,** then select **Property Sheet.** Under the property sheet menu select the **Data** tab, then select the table you would like to run the report for under **Record Source.**

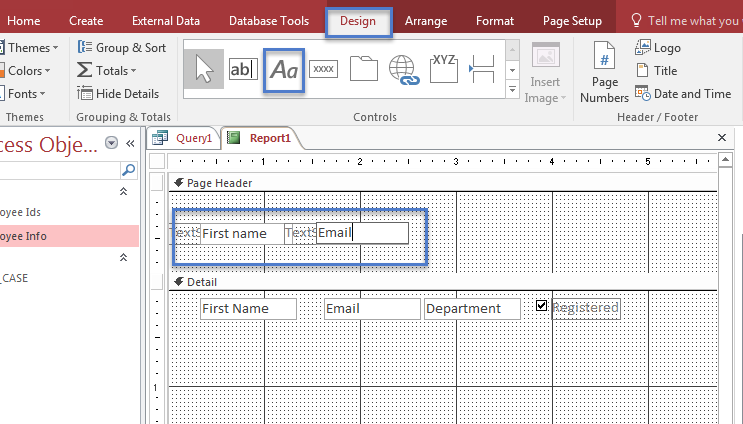


1. In the ribbon, select **Add Existing Fields.** Then **drag and drop** the fields from the field list you want to display in the report.



#### To create headers/footers for your report:

1. Drag the header/footer to the size needed.
2. Then select the **label** control from the control area and click inside the header section.



1. Select **View** and your report will be displayed.

