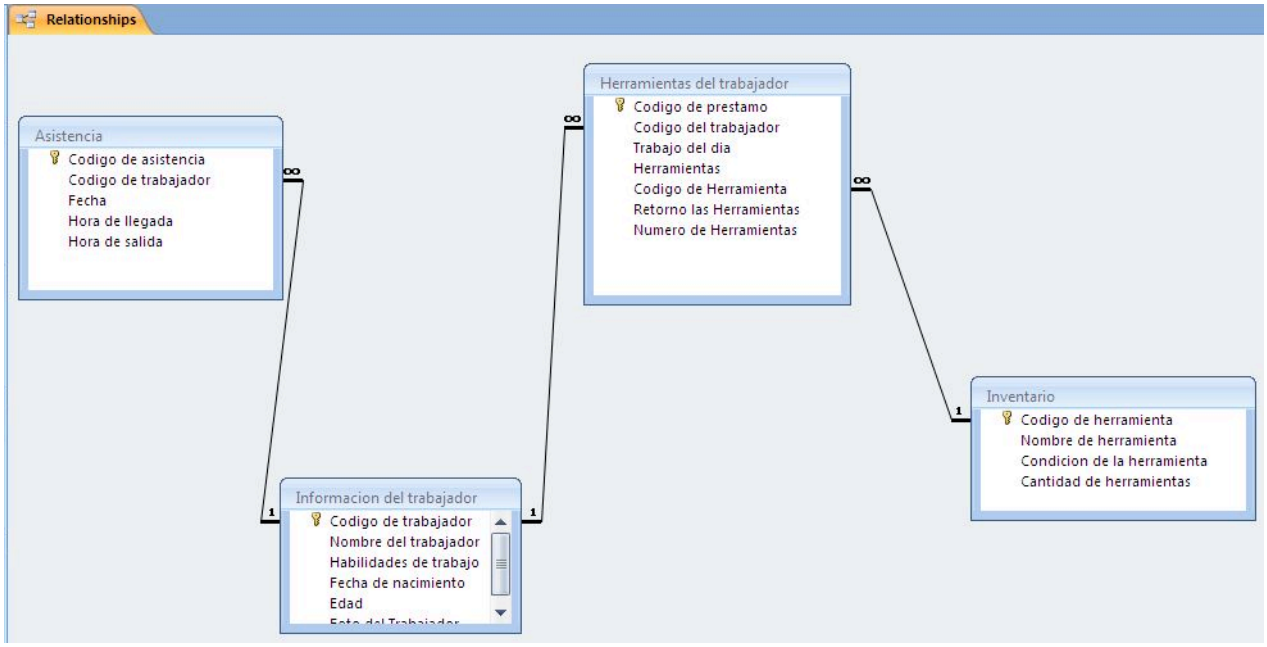
Criterion E: Product development

Advanced Techniques

- Three or more related tables
- Complex queries / Calculated fields
- Use of graphics fields
- Proficient design of reports and/or forms
- Proficient use of techniques to enable easy navigation such as menus or buttons

Organization of the database

The screenshot below show how the database is organized



The tables have the correct names, and data type, so the information they input can match with the correct information the customer wants.

Assistance code

Description below:

Asistencia

Nombre del campo	Tipo de datos
Codigo de asistencia	Autonumérico
Codigo de trabajador	Número
Fecha	Fecha/Hora
Hora de llegada	Fecha/Hora
Hora de salida	Fecha/Hora

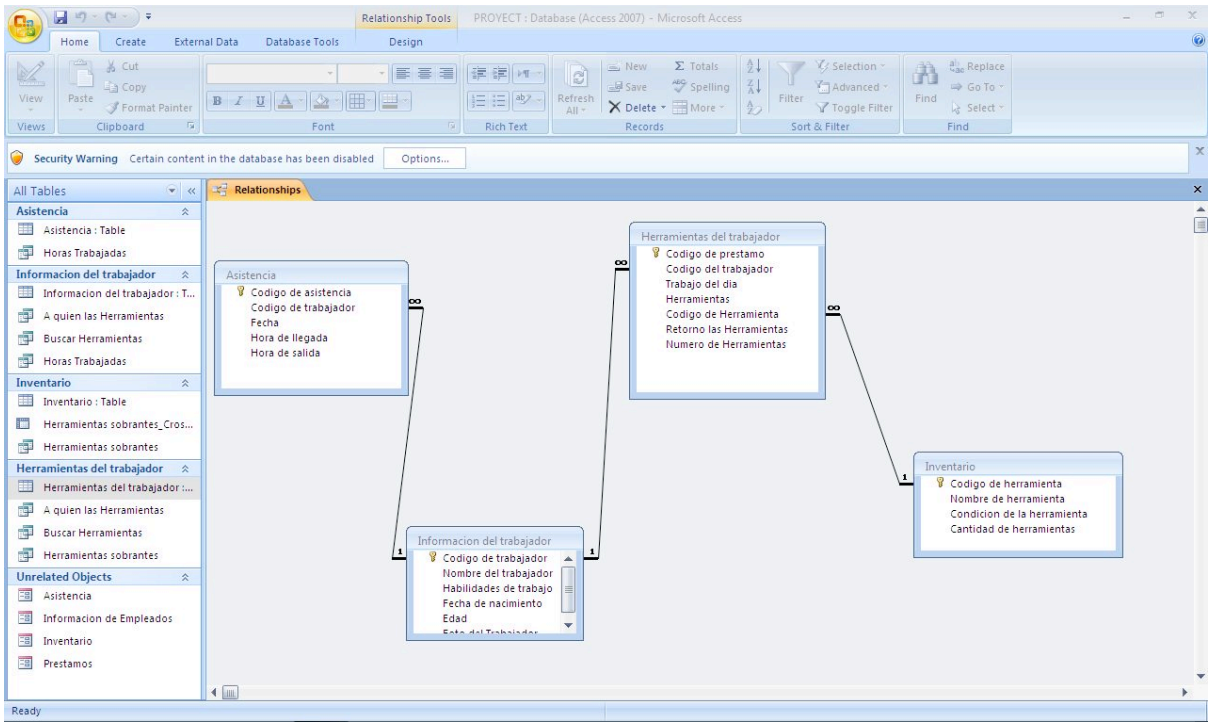
Date and time as they are for the time of arrival and time of departure.

General | Búsqueda

Tamaño del campo	Entero largo
Formato	
Lugares decimales	Automático
Máscara de entrada	99
Título	
Valor predeterminado	
Regla de validación	
Texto de validación	
Requerido	Sí
Indexado	No
Etiquetas inteligentes	
Alineación del texto	General

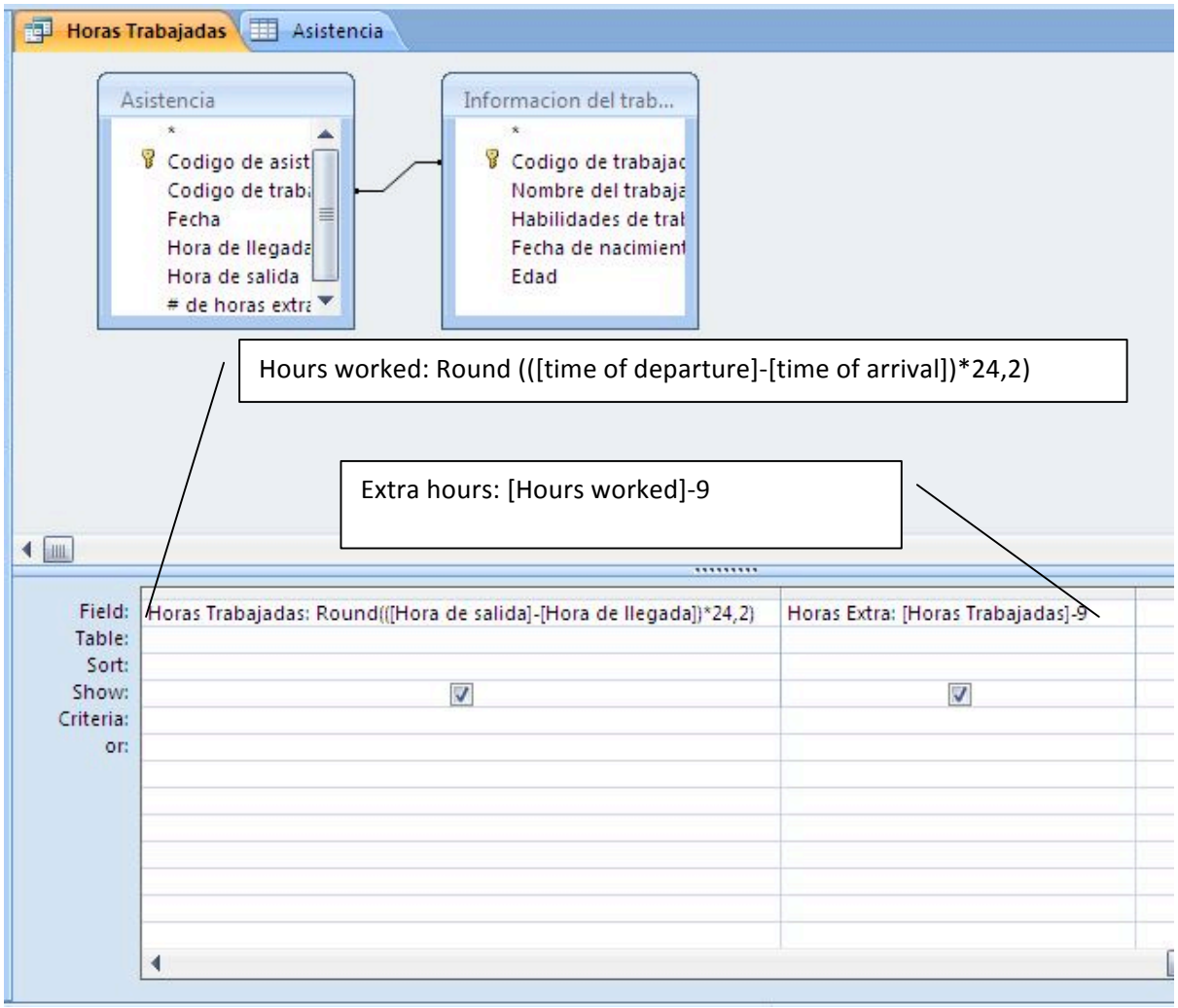
The assistance code is an auto number as we need it to record, each new data we input. And the workers code is a number as each worker is going to have their own personal number, so they can be identify easier. For the workers I put that the maximum amount to character is going to me 2, because the number of workers of my client is around 40 to 60 employees, so it is not necessary to have more than to characters in the employee number. Date field is a date type as we need it to record a date. The time of arrival is a time type as we need to record a certain hour that the worker shows up. And the exit time as well is a time type field as we need to record time.

Three or more related tables



This picture shows the relationship I did between my 4 different tables, this are one to many relationships. This relationships are very important because they are use to create the queries, so the information can be display in the correct order and know how they are related.

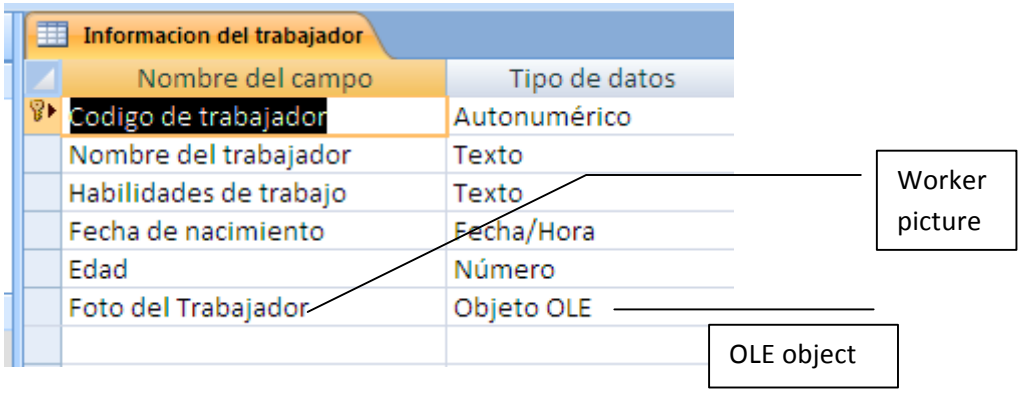
Complex queries / Calculated fields



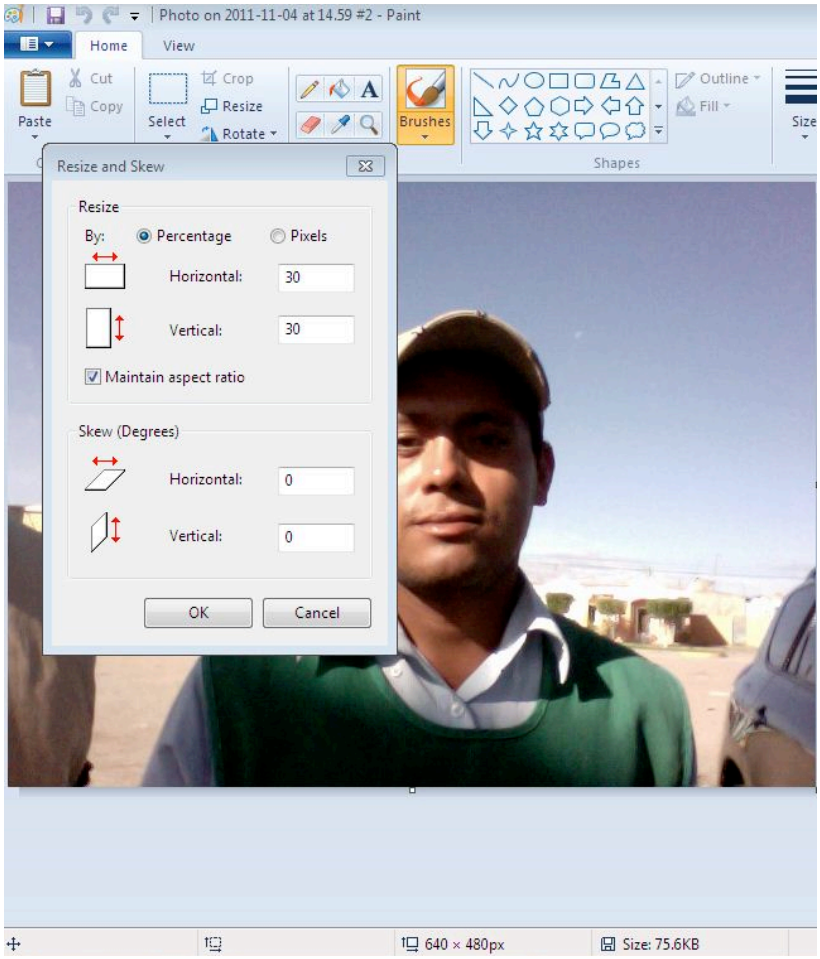
In this query I needed to know how many hours did the worker worked. So what I needed to do was to subtract the time of departure by the time of arrival. But for this I needed to use some math, because access doesn't understand completely what I want. I told access that after subtracting the time of departure by the time of arrival, it had to multiply the result by 24, because they are 24 hours in a day, after that I told access to automatically round my answer to 2 decimal places. As shown in the picture above.

To calculate the extra hours the worker worked, I just needed to subtract 9 to the amount of hours the worker worked. I subtracted 9 because 9 hours is the normal time each worker is supposed to work. As shown in the picture above.

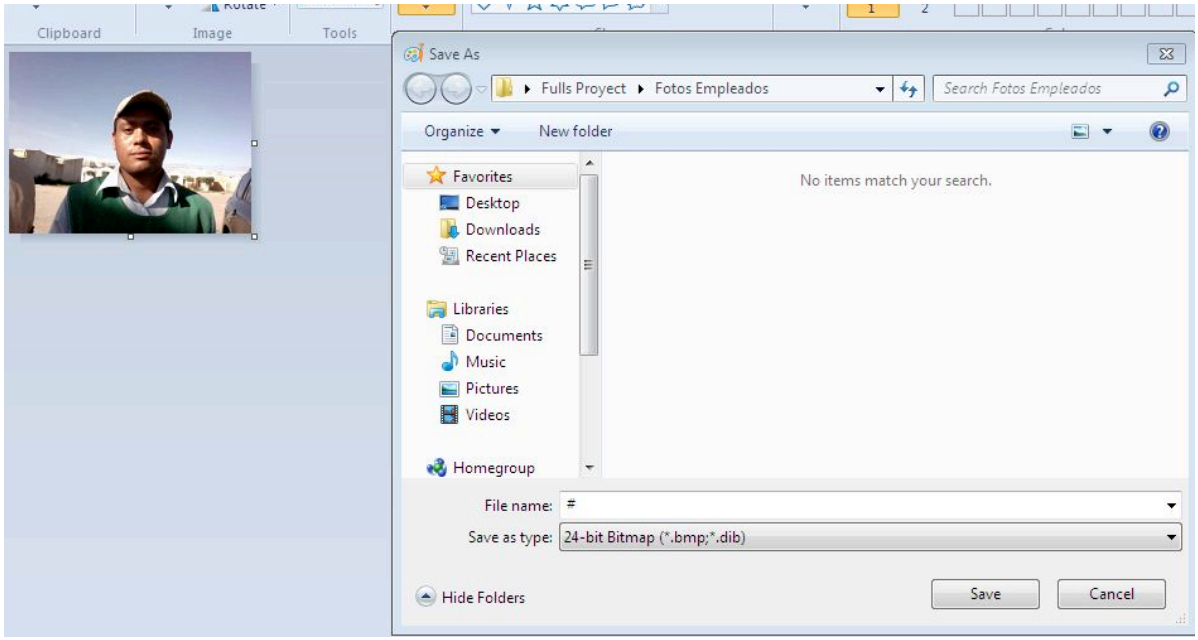
Use of graphics fields



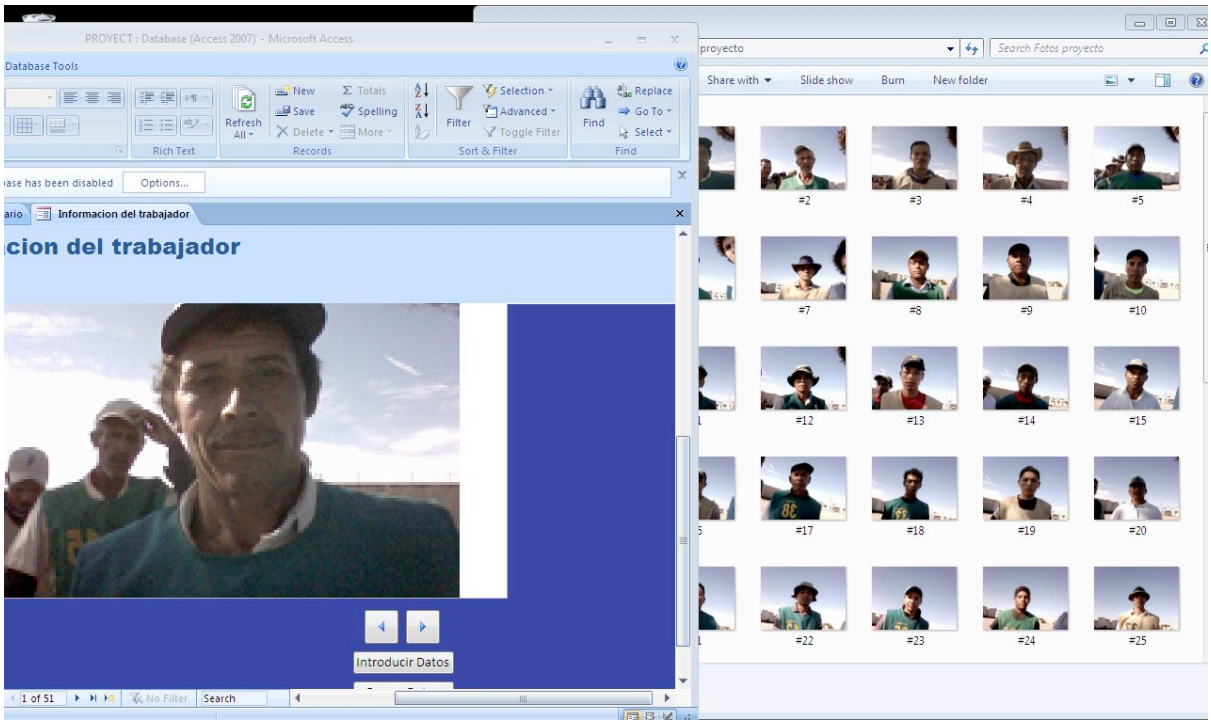
To add images to my database I first had to put the correct data type in my workers information table. The correct data type is OLE object. Putting OLE object as my selected data type allows me to add any type of file in it, which in this case I will add a picture.



Then I had it to open the picture I took to the workers in paint, so I could edit them. The first thing I did was to resize the picture, I resize it to it 30%, I did this so the picture could fit in my database. I did this to each of my pictures. Sample shown above.

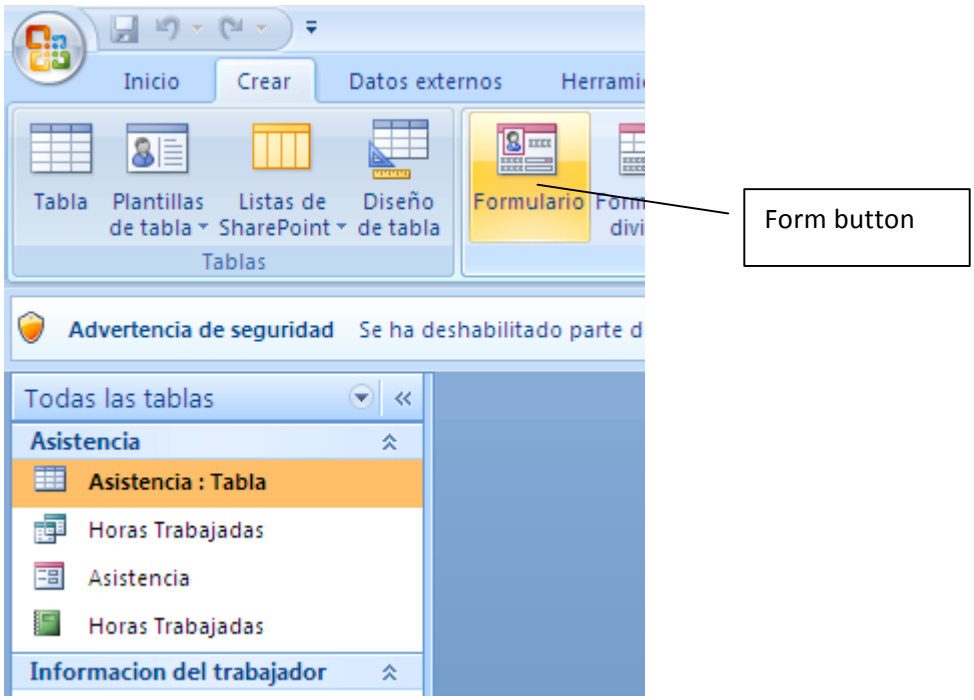


After resizing my picture, I had it to save it but I save it not as a JPEG file, when I save it I saved it as a 24-bit Bitmap, this means that I save it as a bitmap file. I did this because bitmap files are the only picture file that access can show in a data base. I did this to each of my pictures. Sample shown above.

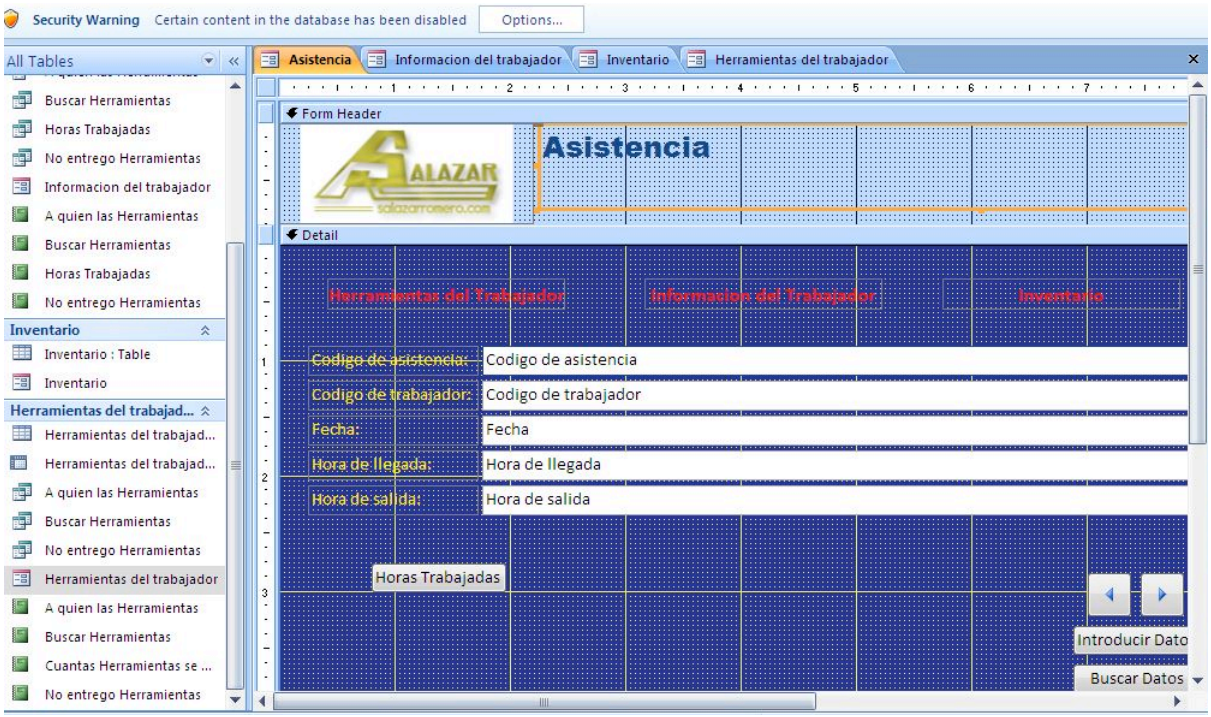


After I resize my picture and changed it to the correct file type, I just dragged each picture to the correct name in my data base. I drag it directly to my form (how I did my forms explain later). After dragging it to the correct place automatically it displays, because it is in the correct picture file.

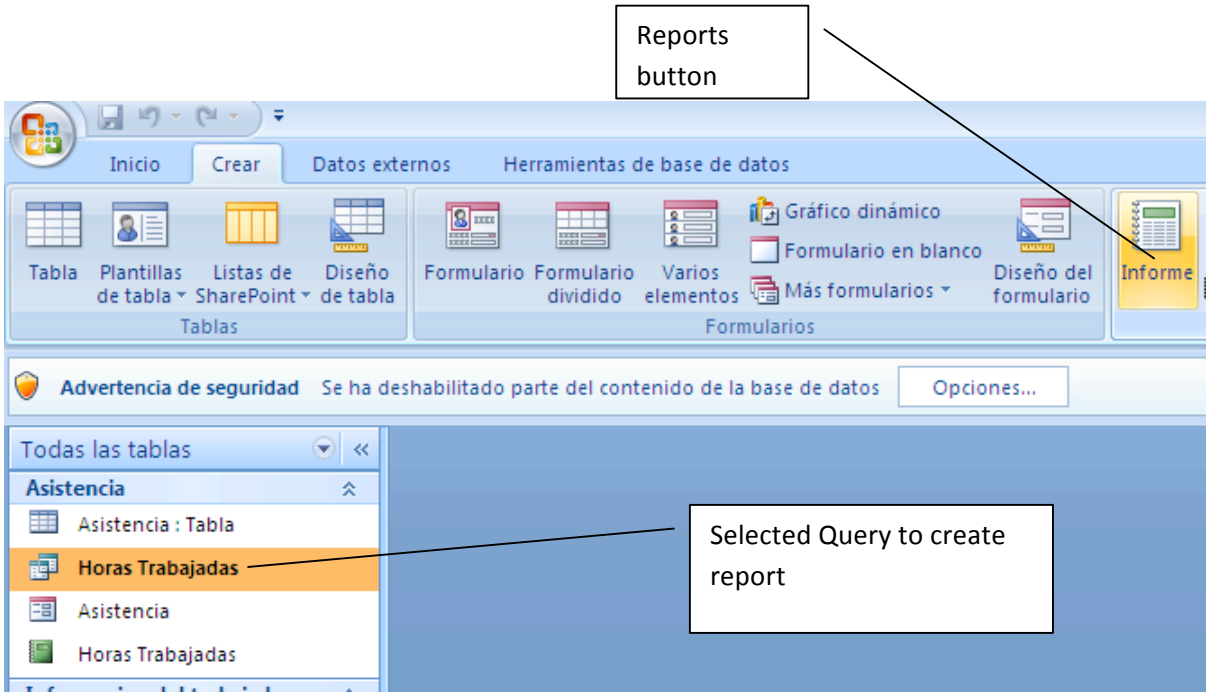
Proficient design of reports and/or forms



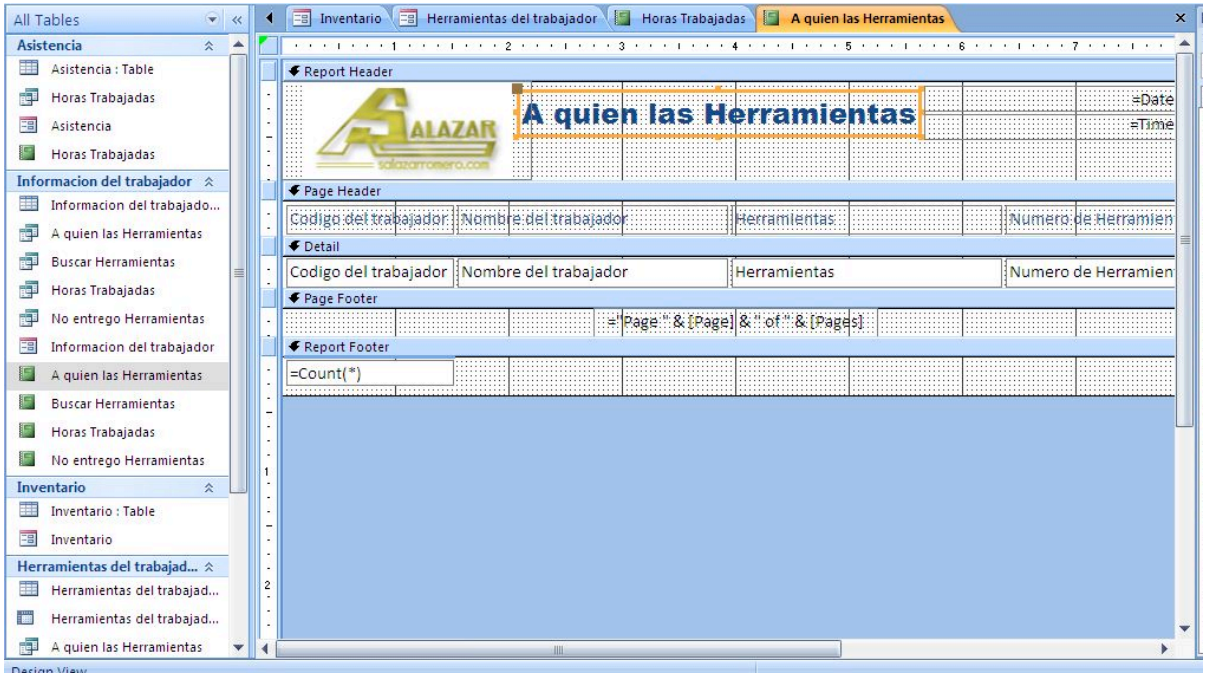
Click on the table you want to create a form and click on create, and click on the button that says “forms”. As shown in the picture above.



After I created my form, I went to design view, and I edit It as I wanted, I added the firm logo, and added some bottoms (how I did the bottoms explain later), I change the background, I did it blue because the company’s main colors are golden and blue. I put the correct title for the form and change the color of the letters so it has a better layout. Show in the picture above.

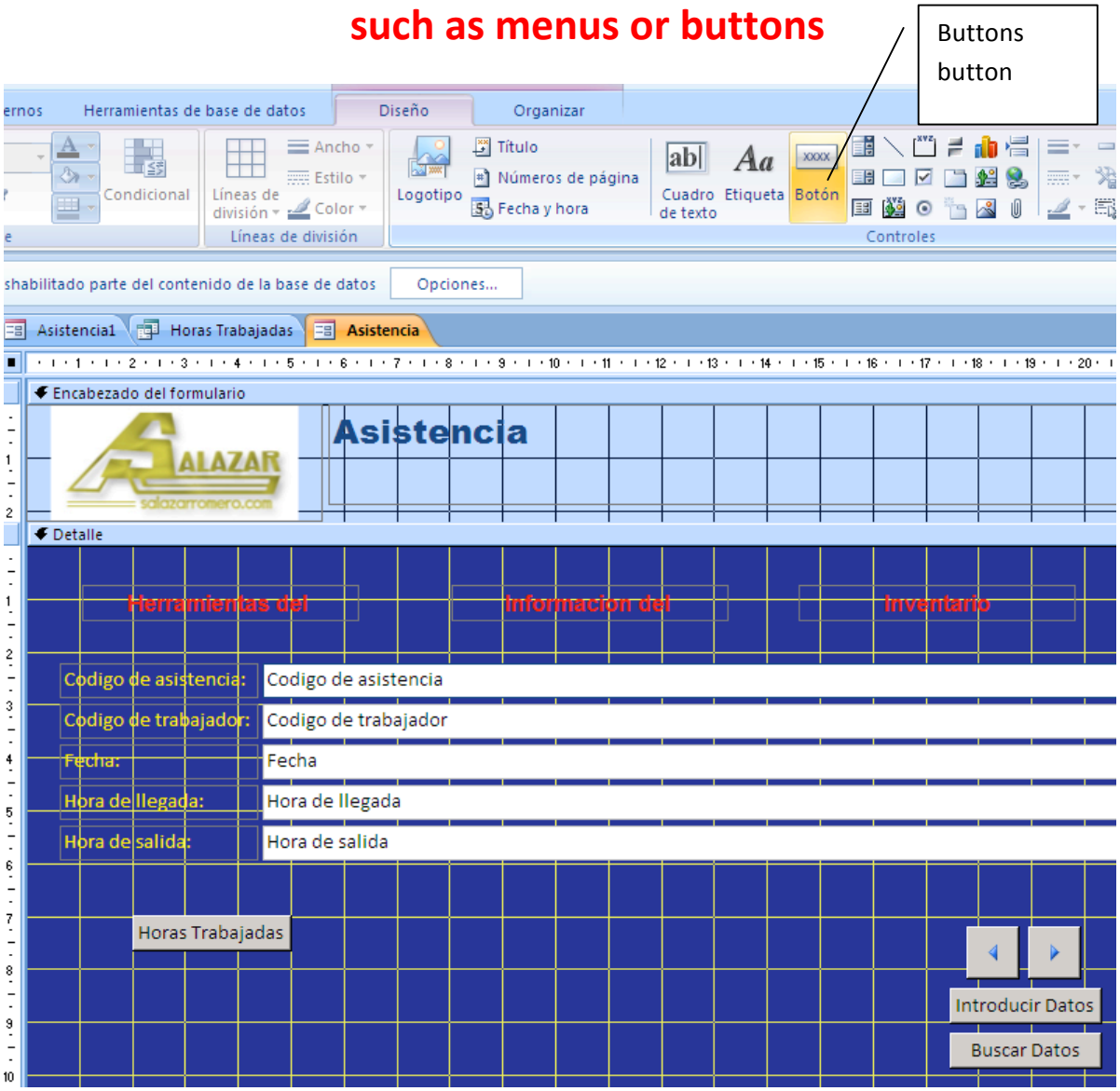


Click on the query you want to create a report and click on create, and click on the bottom that says “reports”. As shown in the picture above.

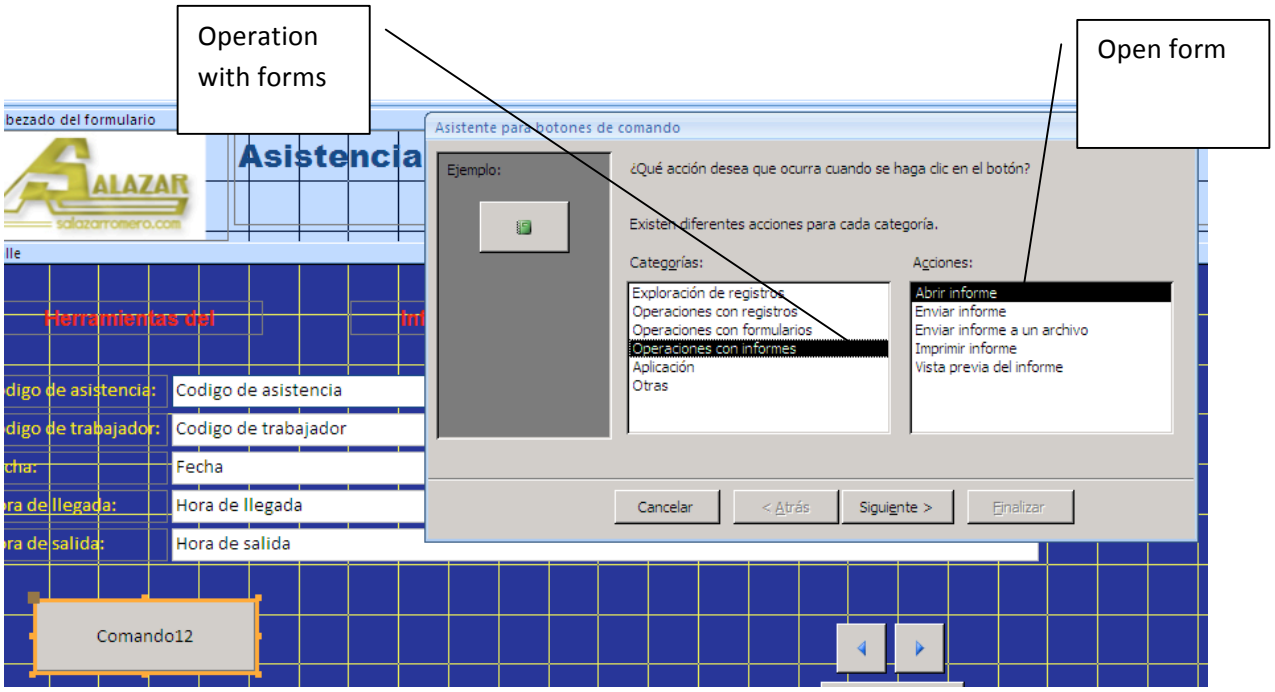


After I created my report I went to the design view and I edited my report as I wanted. I add the correct title to my report and I added the company’s logo. I decided not to change the background so it will be easier to find the difference between the forms and the reports, so is more users friendly my database.

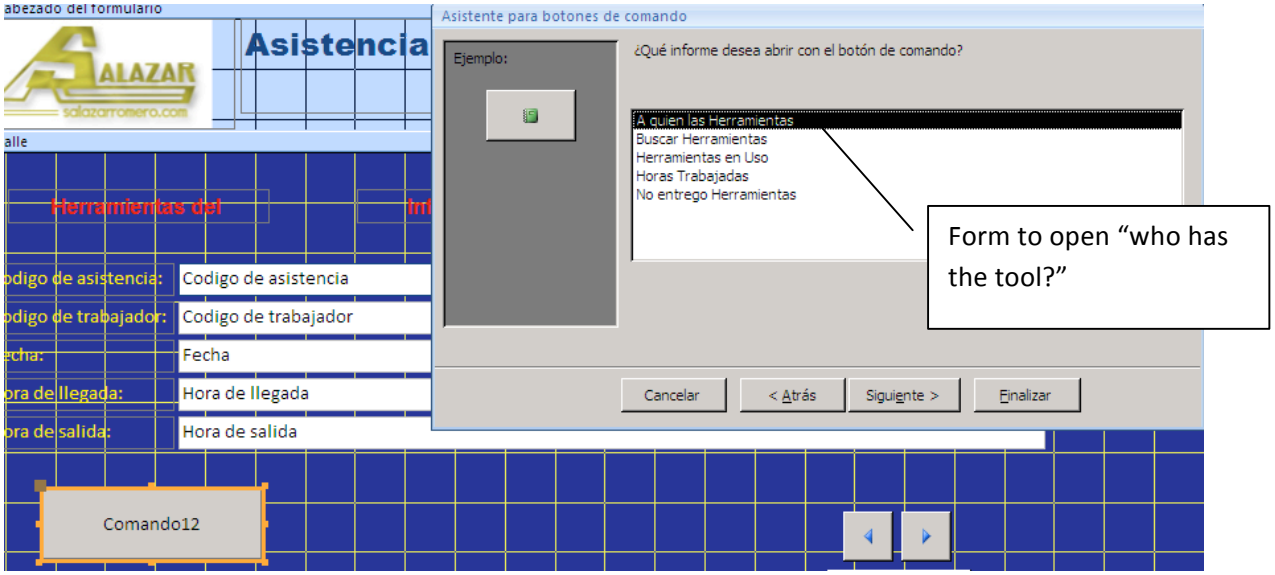
Proficient use of techniques to enable easy navigation such as menus or buttons



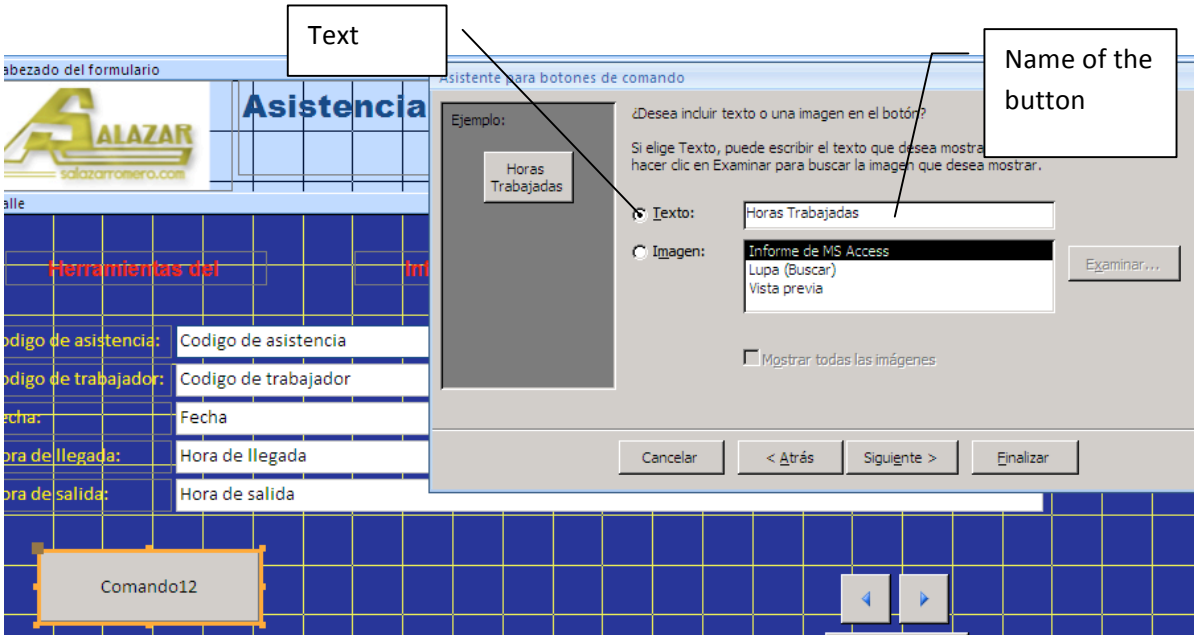
To create the bottoms I clicked on clicked on the “button” option that is on designs. As shown in the picture above.



After creating the bottom, I had to choose what I wanted the bottom to do. In this case I choose to open a report. As shown in the picture above.



Then I had to choose which form it will open. As shown in the picture above.



Then you have to name the bottom or chose a picture to identify it. In this case I put a name to my bottom. As shown in the picture above.

Word Count: 936