Step 9

Tables 1

Access 2007

Windows 10

Okt -18
Liljedalsdata.se

Beginning

This is a basic IT-education. Office 2007 is used and is available on internet.

You must know Step 1, 2, 3.

Handeling tables is a very big part of all administrative work on computers.

Bookkeeping, registers of costumers, registers of articles, register of suppliers, orders, invoices, handeling of booking, inventory are routines which are made by handeling of tables.

Many economic programs are developed in access.

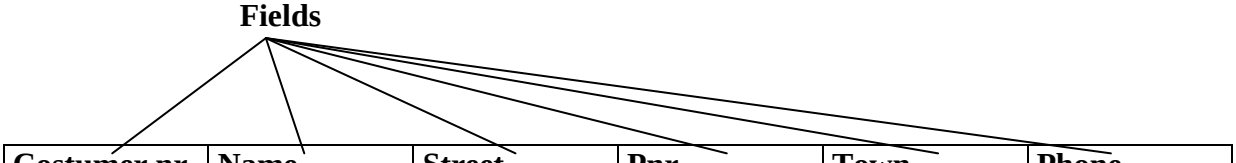
After this course you probably are able to develop tailermade tables.

What is in texts and pictures is uninteresting this course only is about handeling Access.

Create folder Documents\Databases.

Make sure you have some photos in your computer to use when you create a photo register.

Ideas



Costumer nr.	Name	Street	Pnr	Town	Phone
1001	Andersson	Algatan 3	123 45	ALSTAD	0011/121314
1002	Bengtsson	Badgatan 4	112 33	BUSSTAD	0101/131413
1003	Classon	Cedervägen 7	121 22	CSTAD	1333/144444
1004	Davidsson	Dalvägen 9	151 55	DAGSTAD	0088/232322
1005	Eriksson	Envägen 5	166 66	ENSTAD	0099/778877

Table consists of 5 **posts or objects**.

One post may be f.ex. a costumer.

There are 6 different informations about every object or 6 fields.

Head line for a field is called field head line.

To get Andersson in field **name** length of field has to bee at least 9 signs.

Sum of all length of fields is called length of posts.

When you are planning a table you usually create a field which is different for all posts. In this case number of costumers is planned not to be same for two posts.

If you decide table may be sorted on one field you call this field indexed. This means an index is created which make the table sorted in another way faster. If a field beside this can not have same data this is an uniqe index.

To be able to connect tables to each other (related tables) you can do this field to a keyfield.

If you create a table without uniqe index program usually create an ID-field where posts are numbered in the way they are created.

Planning

When you are going to create a table you ought to think thru the table.

Which fields shall be in table?

Which length of field do you need for every field?

Do I need any indext field?

Will there be any uniqe index?

Do I need any key field to relate tables to each other?

Is it possible the table will be part of a bigger system? If you use Access you have possibilities to make it more complicated later.

If you are going to develop a small table there are many programs you can use to do this.

Some simple tables

If you are planning a register or a database it is important to use a program which is suitable.

Start word.

Click Insert /Tables/Table/Insert table.

Change to 6 rows and 6 columns and click OK.

Write this table.

Number of c	Name	Street	Pnr	Town	Phone
1001	Andersson	Algatan 3	123 45	ALSTAD	0011/121314
1002	Bengtsson	Badgatan 4	112 33	BUSSTAD	0101/131413
1003	Classon	Cedervägen 7	121 22	CSTAD	1333/144444
1004	Davidsson	Dalvägen 9	151 55	DAGSTAD	0088/232322
1005	Eriksson	Envägen 5	166 66	ENSTAD	0099/778877

Save register in Documents\Databases as wordtable.

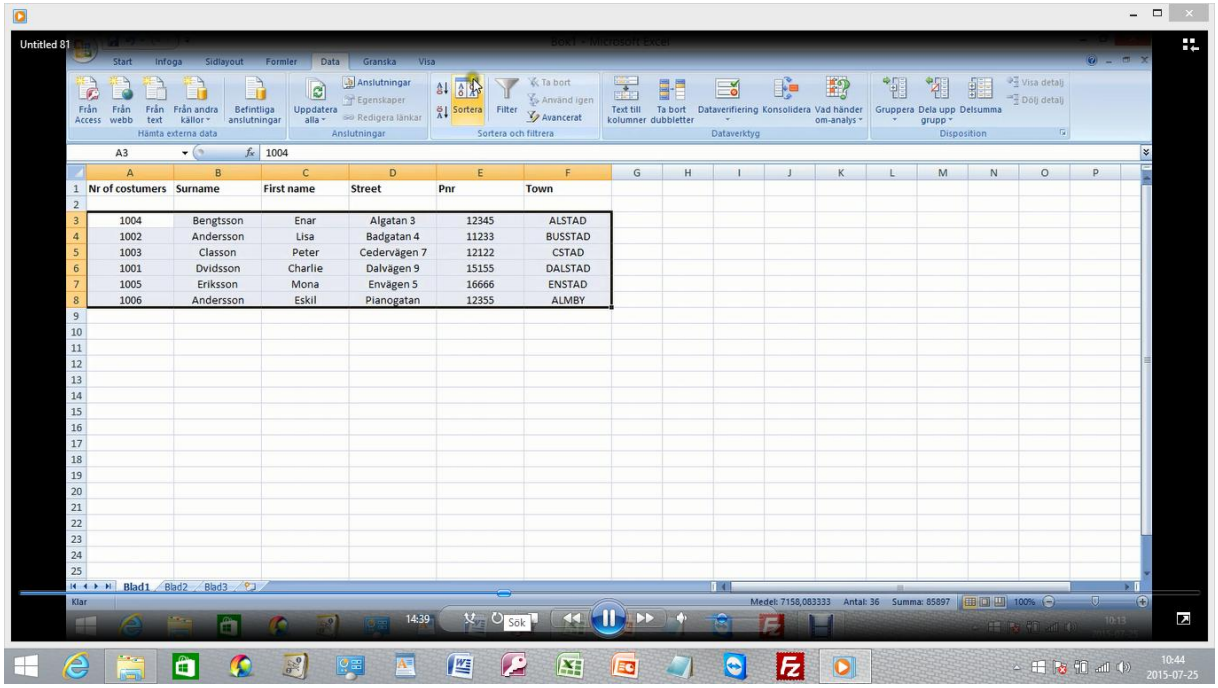
Start Excel write this table.

Nr of customer	Surname	Firstname	Street	Pnr	Town
1004	Bengtsson	Enar	Algatan 3	12345	ALSTAD
1002	Andersson	Lisa	Badgatan 4	11233	BUSSTAD
1003	Classon	Peter	Cedervägen 7	12122	CSTAD
1001	Davidsson	Charlie	Dalvägen 9	15155	DALSTAD
1005	Eriksson	Mona	Envägen 5	16666	ENSTAD
1006	Andersson	Eskil	Pianogatan 4	12355	ALMBY

Save taable in Documents\Databases as exceltable.

Mark A3 to F8.

Click Data/Sort and filter/Sort.

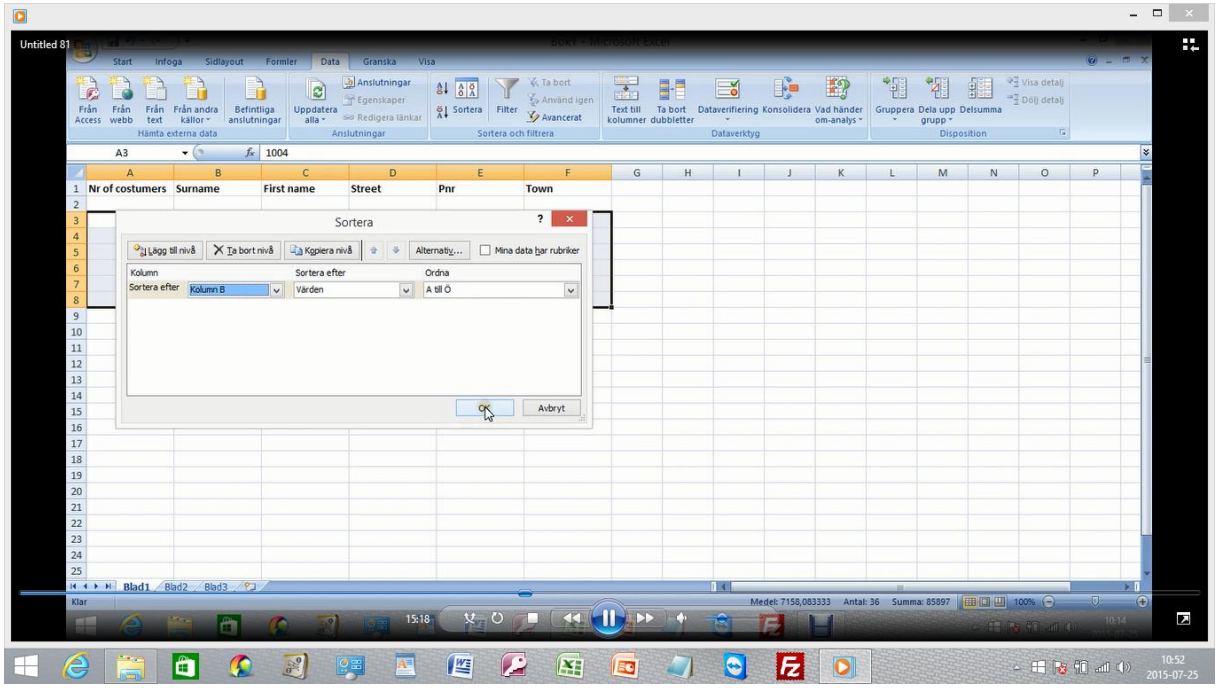


Sort table on Ename and increasing. Note Andersson Lisa still is before Andersson Eskil. Don´t save.

Click Data/Sort and filter/Sort

Click <Add level>

Sort table on surname and after that on first name.



Now Andersson Eskil is before Andersson Lisa. Don´t save.

Conclusion

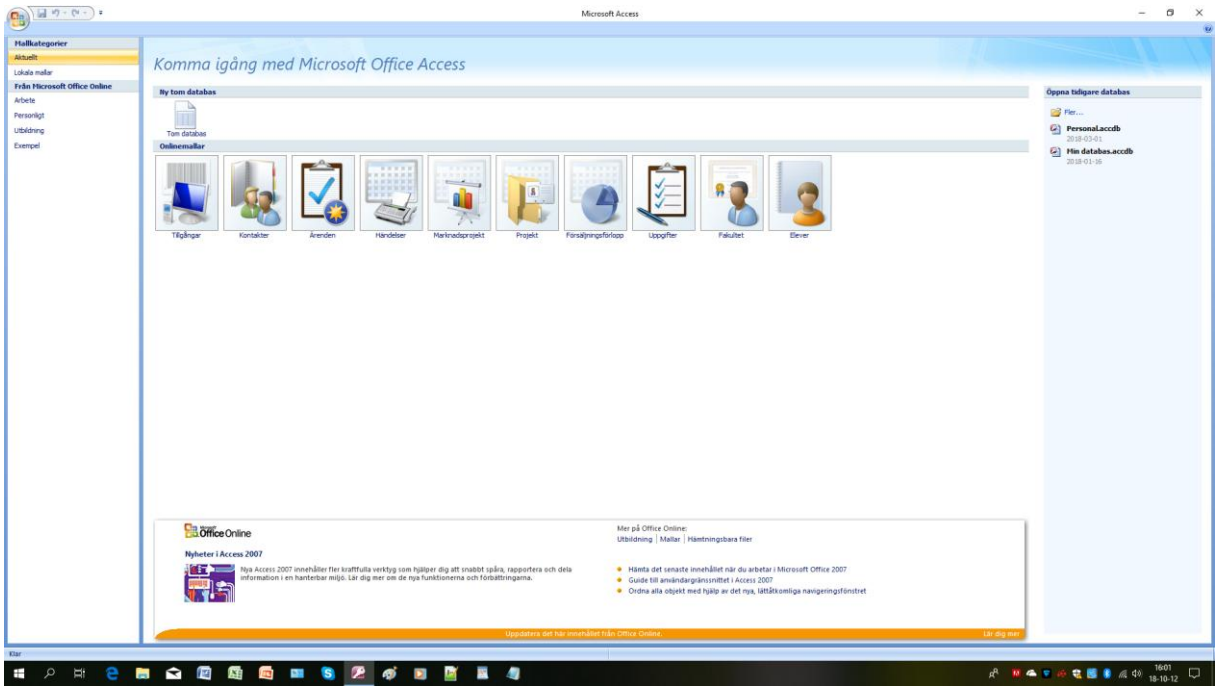
A simple table you may create in Word or Excel.

In excel you even may resort the table.

If you expect the register will be more complicated and maybe used by unexperienced people you ought to choose access to be able to adapt the table.

Some tables in Access

Start Access.



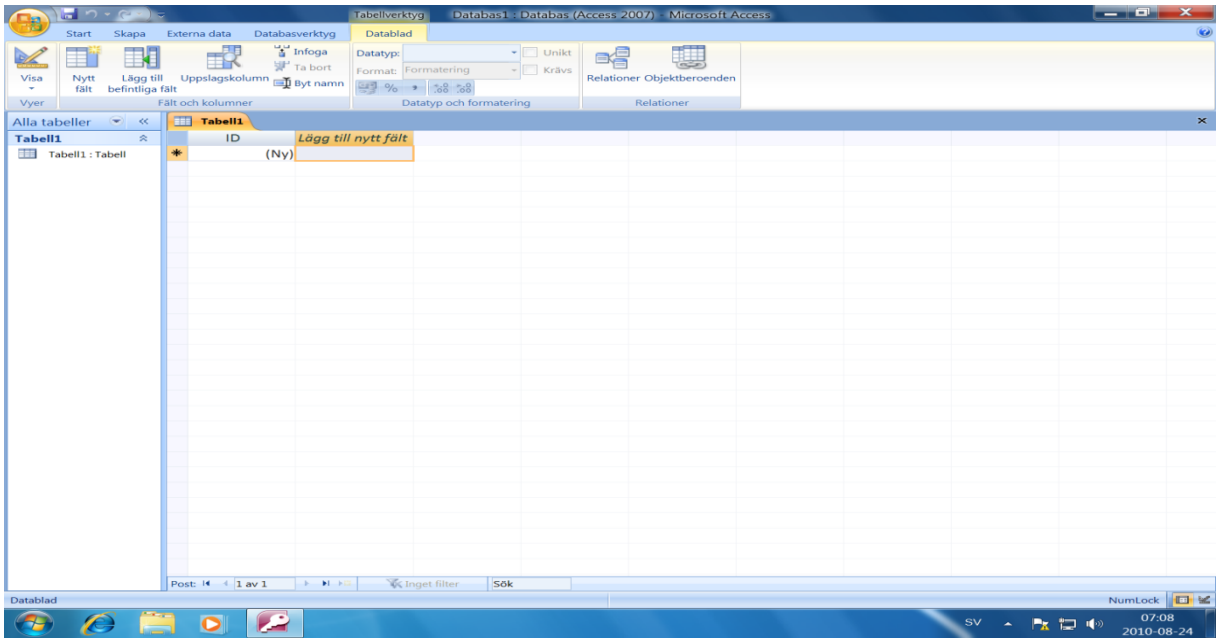
Click Empty database.

Now you will see to the right where your database will be stored.

You don´t hav to know this if you mark My database every time you start Access. If you want to delete a database you may find the file with Explorer and delete. Unfortunately it´s not possible to delete the name from this start screen.

Note all registers you are going to create now will be in this database.

Write My database as filename and click <Create>

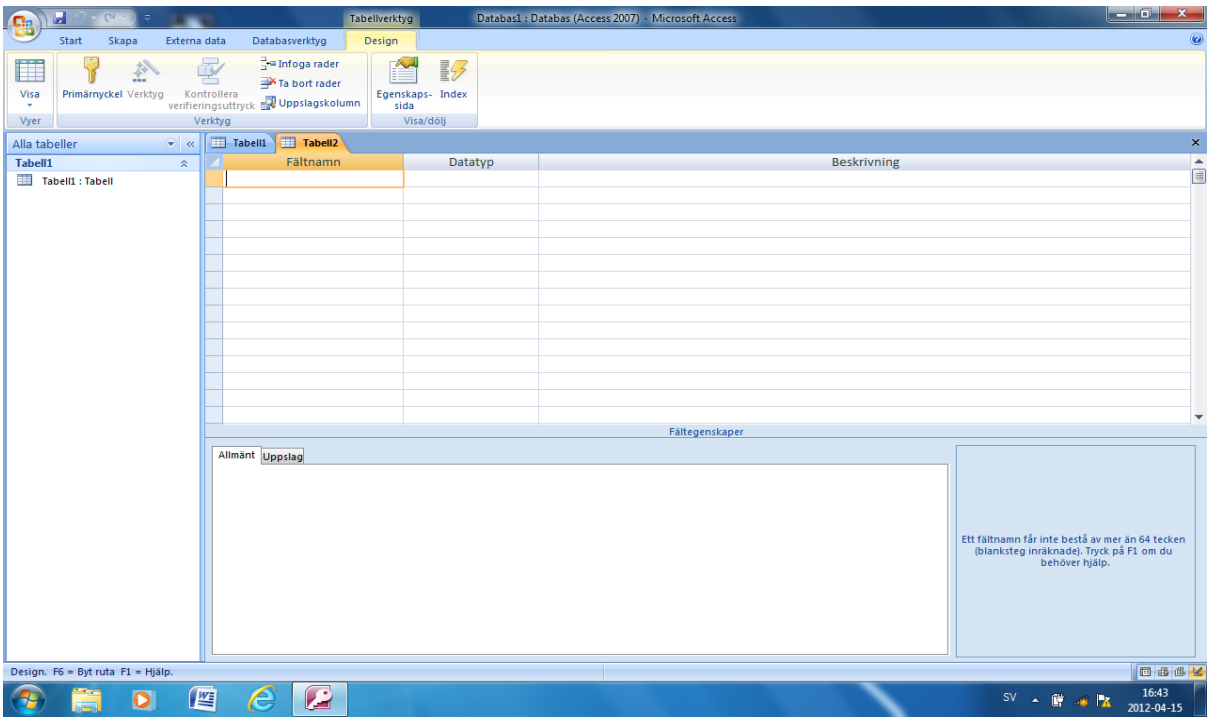


Now you see a window where you can decide what to do with different registers belonging to your database. For an example you can read Table 1: Table to the left and there you can create new registers or study registers you have created earlier.

Now you can create a new register but first you must decide what this register will be like.

Costumers

Mark Table 1: Table. Click Create/Tables/Tabledesign in row of bottoms.



You see a window where you can decide how your first register shall work.

Name the first field wit fieldname Number of costumer. You are not allowed to use dot in fieldname.

Press arrow right on keyboard.

Now you get Text as a suggestion to type of data.

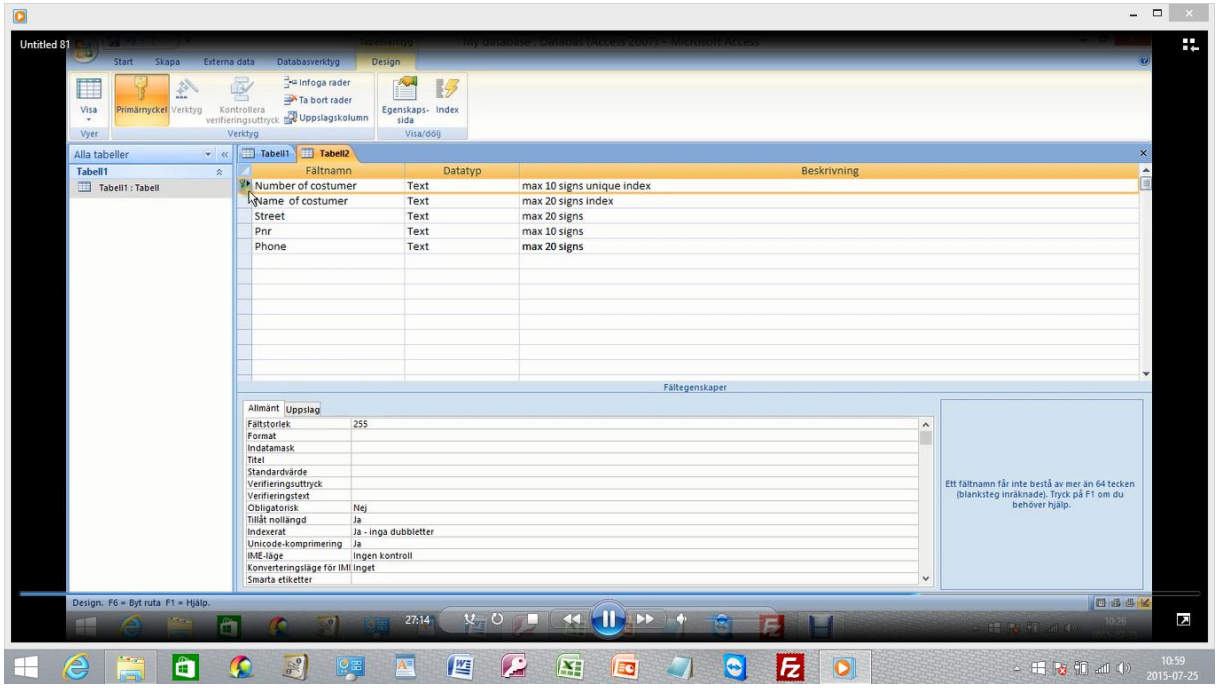
Text means you can write most signs but you cann´t make mathematic calculations on field.

Press arrow right.

You shall also decide there are never needed more than 10 signs in field. Although number of costumer has not more than four signs you ought to round off to a higher level. Field shall be able to be sorted (index) and only one post with a certain number of costumer shall bee in table(uniqe).

Description of field in third column is only for you.

Write all data as in picture.



When you have registrated data on all rows it is extremly important you do exactly what is said here.

Mark now the first row by clicking to the left of N in Number of costumer.

Click Design/Tool/Primary key.

Check you get a key before Numberof costumers.

In lower part of screen is a window which describes field Number of costumers.

Here is max. size of field 255 signs.

Now change this to 10 signs as you have desided max size of field for number of costumers will be 10 signs.

In this window you also shall see to that this field is indexed and that doubles are not allowed.

When you click in cursor on row indexed and click up the list, långt till höger, there are 3 alternatives to choose between.

Choose Yes-No copies.

Mark Name.

Change size of field from 255 to 20.

Make the field indexed but doubles are allowed.

Mark Street.

Change size of field from 255 to 20.

As Street not is needed to be sorted No will be written on row indexed.

Mark Pnr.

Pnr will have size 10 and. Indexed: No

Town will have size 20 and Indexed: No

Phone number will have size 20 and Indexed: No

Check all fields have proper design.

Close field definitions with black cross to the right.

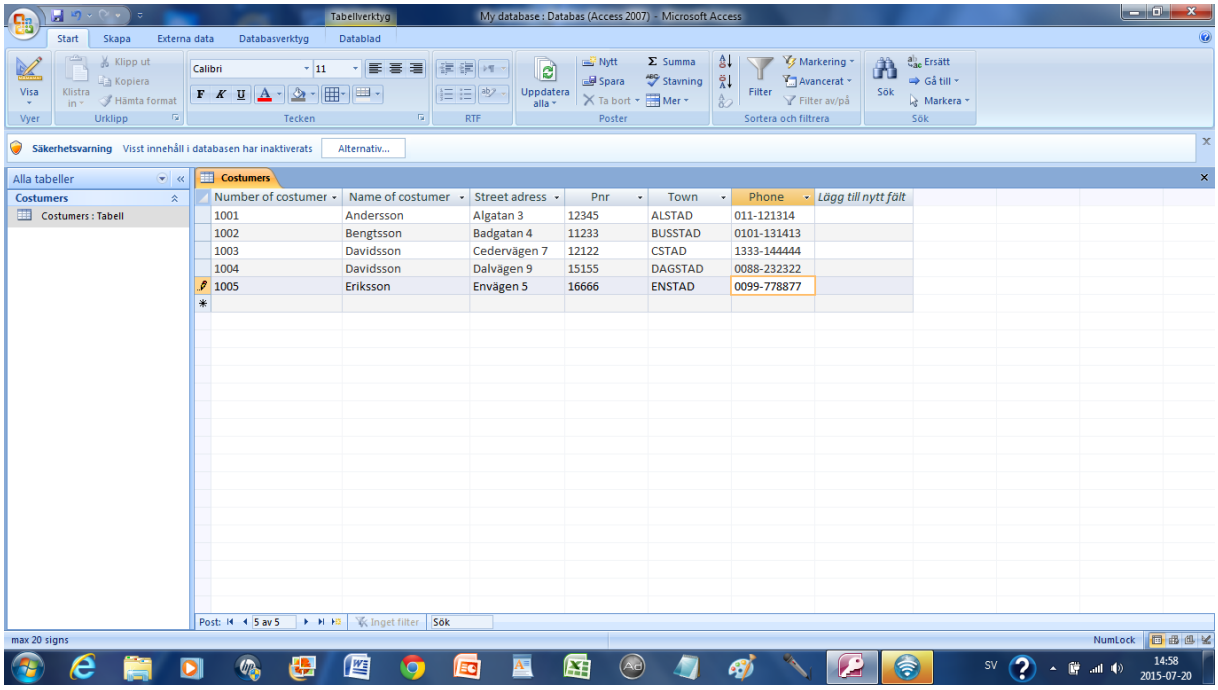
Answer yes on question if you want to save.

Save as Costumers.

Click OK.

Open table with costumers by clicking twice on Costumers to the left. Now you will have a table according to your description of design.

Write the costumers.



You may adjust the with of columns as usual by dragging the lines of columns.

Close your tables of costumers.

Close Access.

Start Access.

Click My database.

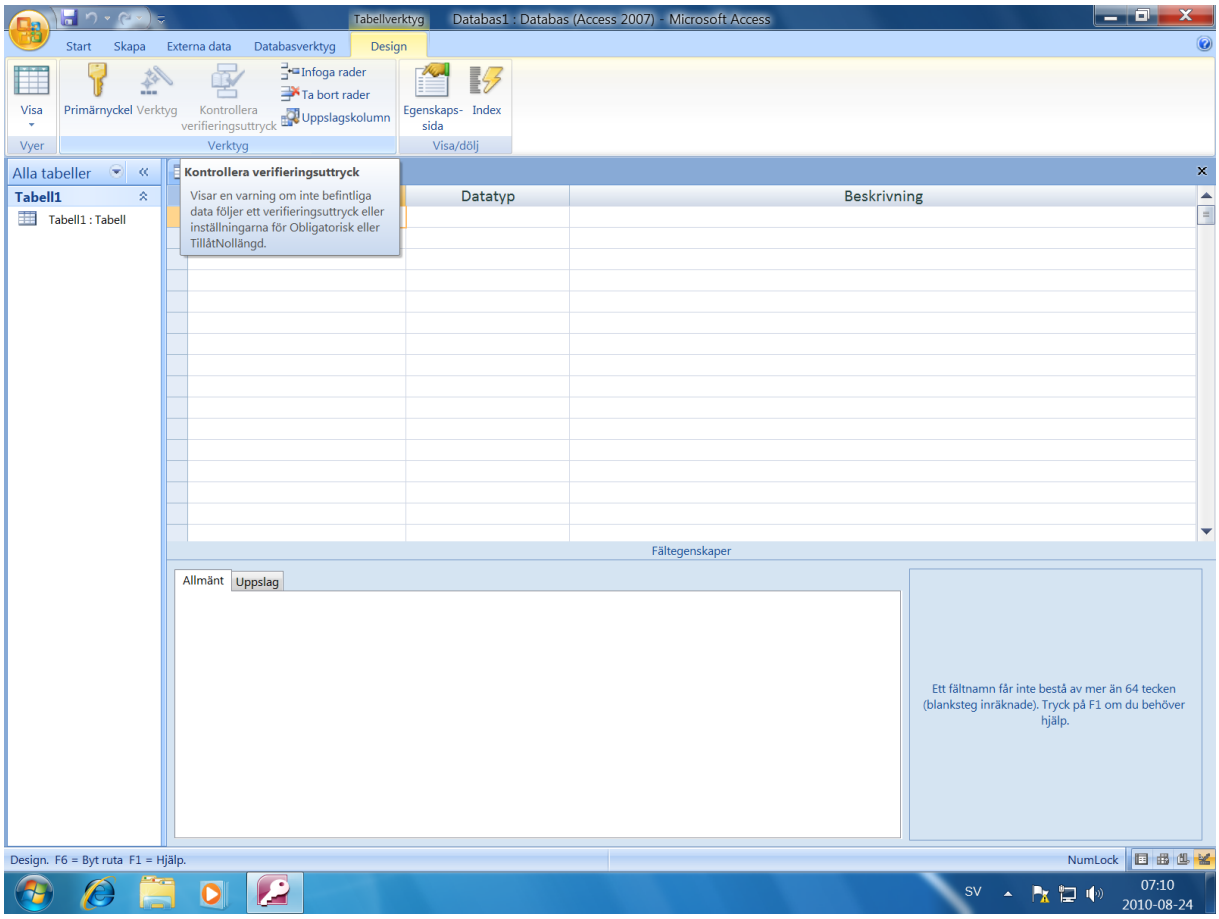
Click twice on Customers: Table to the left and check you are able to open your register of costumers.

Close your table of costumers.

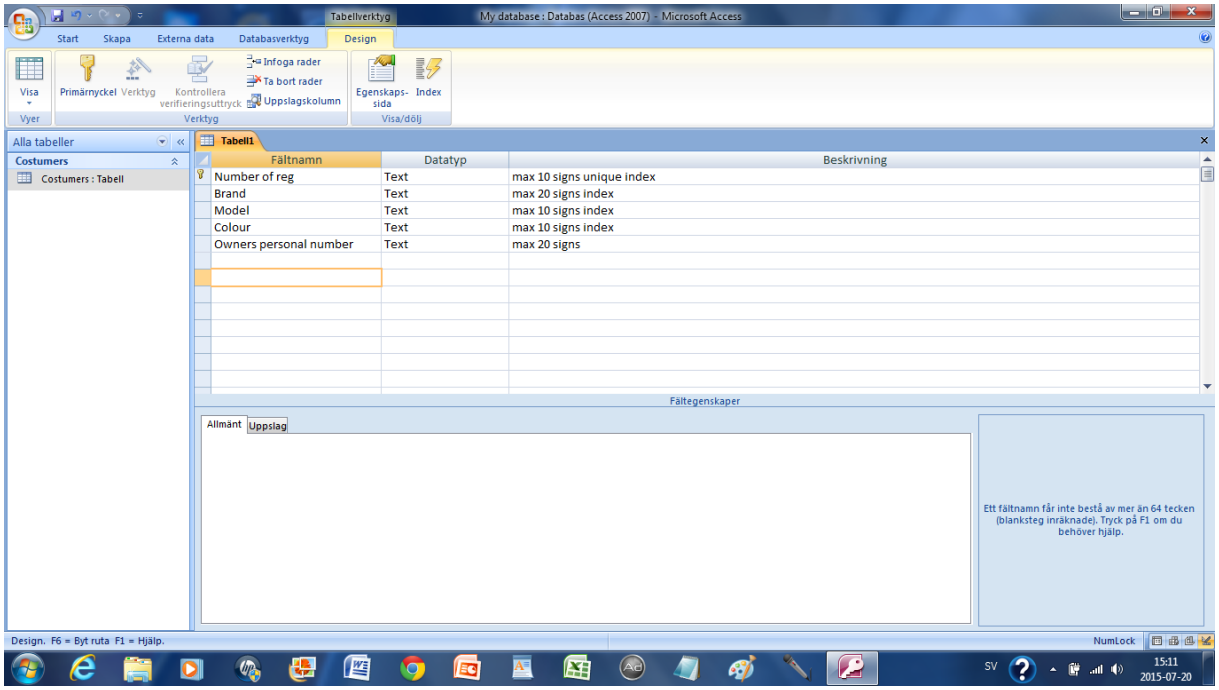
As you see you don´t have to bother so much about saving when you work in access.

Cars

Click Crate/Tables/Tabledesign.



Now you see a window where you decide how your table of cars will work.



The first field will have number of registration as name of field.

Press arrow right on keyboard.

You get Text as a suggestion of type of data.

Text means you can write most signs in field.

Press arow right.

Write this field is 10 signs even if registration number is 7 signs. Field will be sorted (index) and only one post with aa certain number of registraton (unique).

Write all data as in picture.

Mark Number of registration.

Make Number of registration to Key field by clicking Design/Tool/Key

Mark Number of registration.

Change in window at bottom of screen.

Size of field 10.

Indexed will be yes and unique

Mark Type of car.

Size 20.

Indexed Yes and copies allowed.

Mark Model year.

Size of field 10.

Indexed Yes copies allowed

Mark Colour.

Size of field 10.

Indexed Yes and copies allowed.

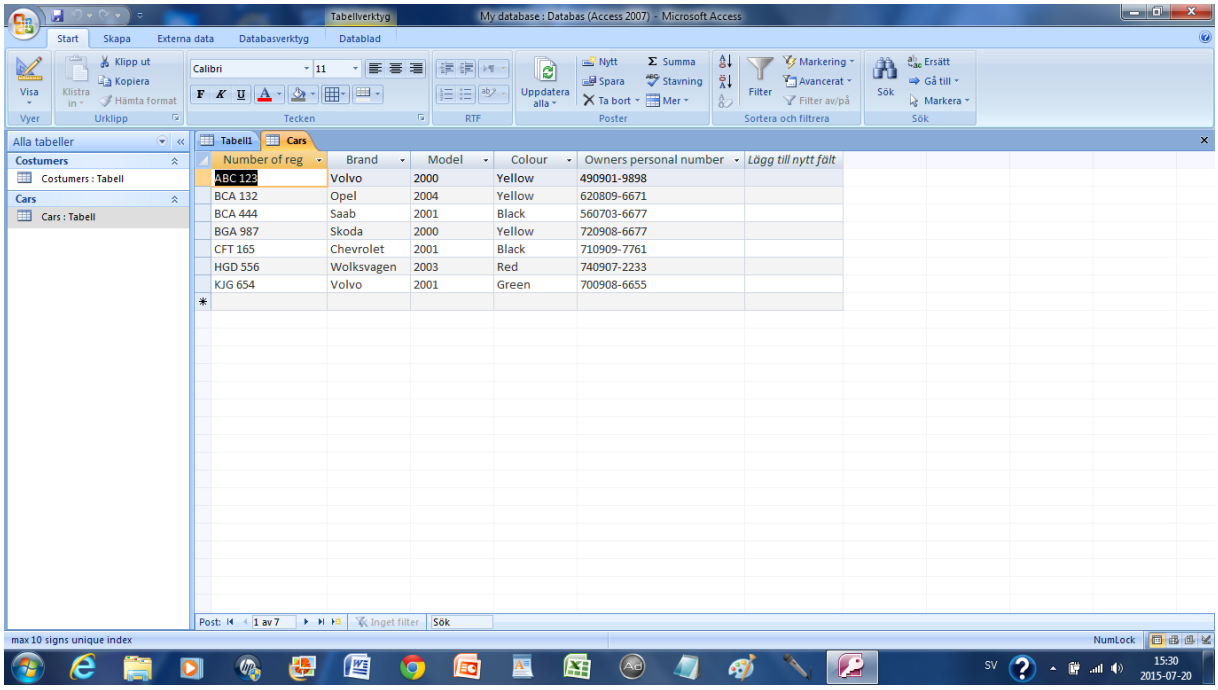
Mark Owners personal number

Size of field 20

Indexed is No.

Close window with design of table and save as Cars.

Click twice on cars to the left.

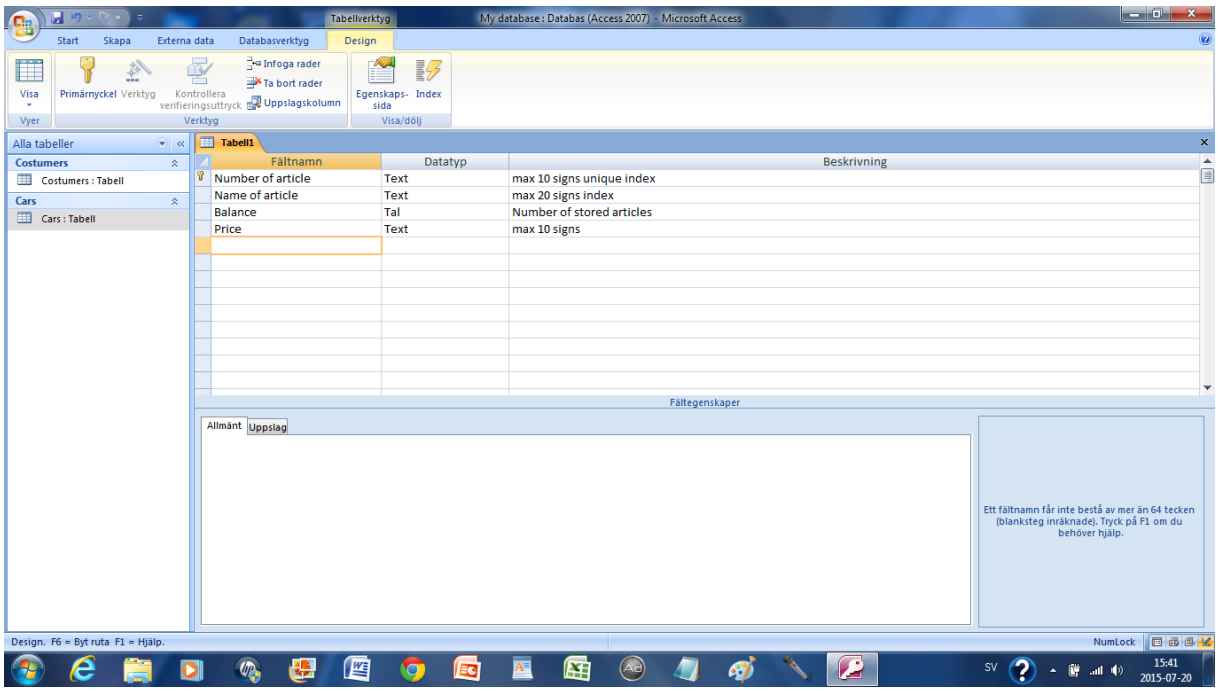


Write cars as on picture.

Close window with cars.

Articles

Click Create/Tables/Table design



Design adjustments for an article register as in picture. Type of data on balance will be number. Balance is number of articles stored and we will calculate total number of articles.

Mark Number of articles

Make the field keyfield.

Change in lower window.

Size is 10.

Indexed will be yes and no copies.

Mark Name.

Size 20.

Indexed is yes copies allowed.

Mark Saldo.

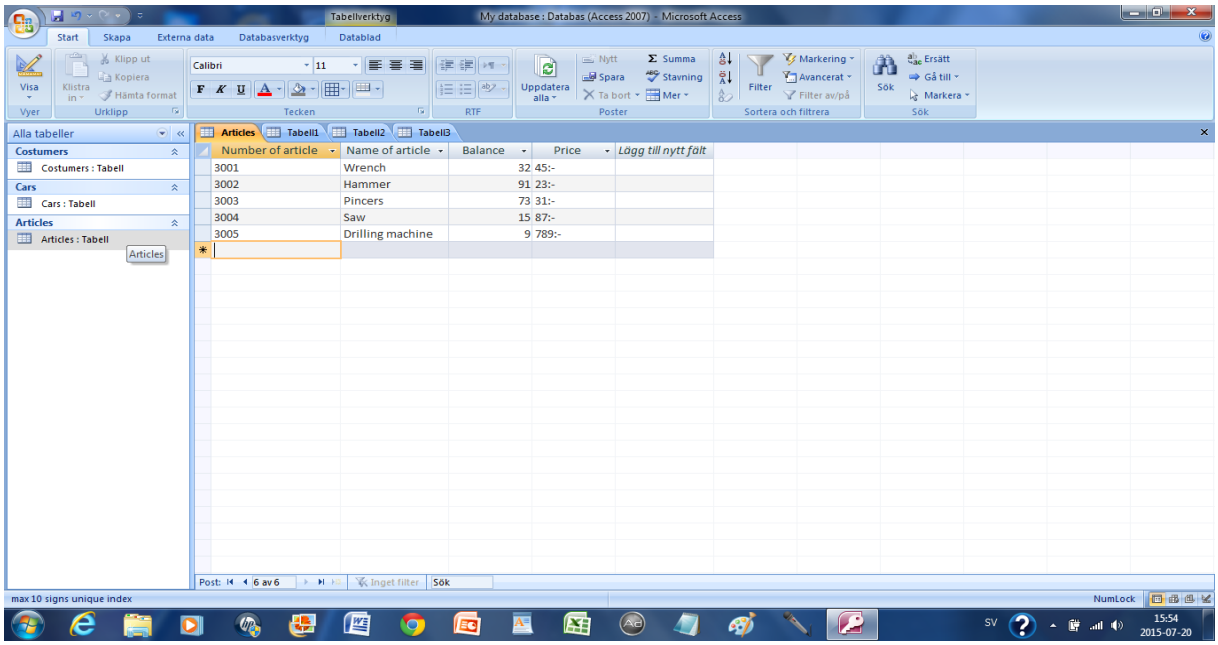
No changes.

Mark Price.

Size 10.

Indexed No.

Close windows tabledesign and save as articles.



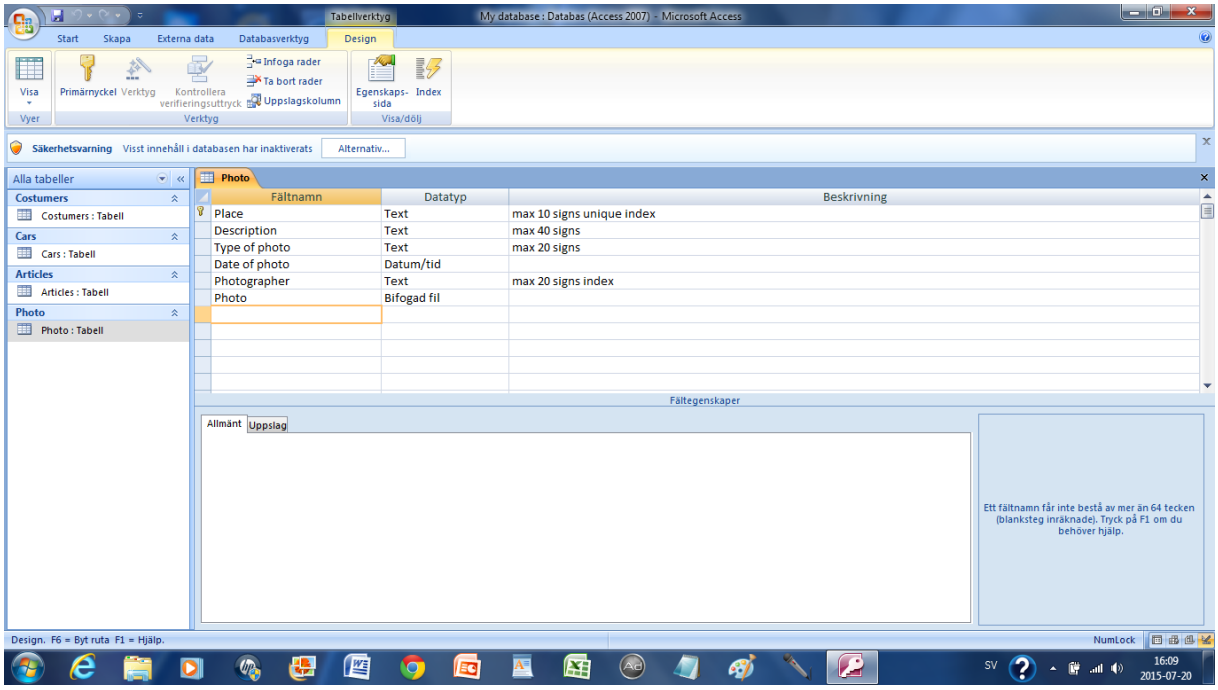
Click twice on articles

Write articles as in picture.

Close the register with cross.

Table of photoes

Click Create/Tables/Tabledesign.



Design table as i picture.

Notice type of data for date will be Date/Time and Photo will be enclosed file.

Mark Place.

Klick Design/Tool/Keyfield.

Size 10.

Indexed is Yes no copies.

Mark Description.

Size 40.

Indexed is No.

Mark Type of photo.

Size is 20.

Indexed is Yes copies allowed.

Date need no adjustment

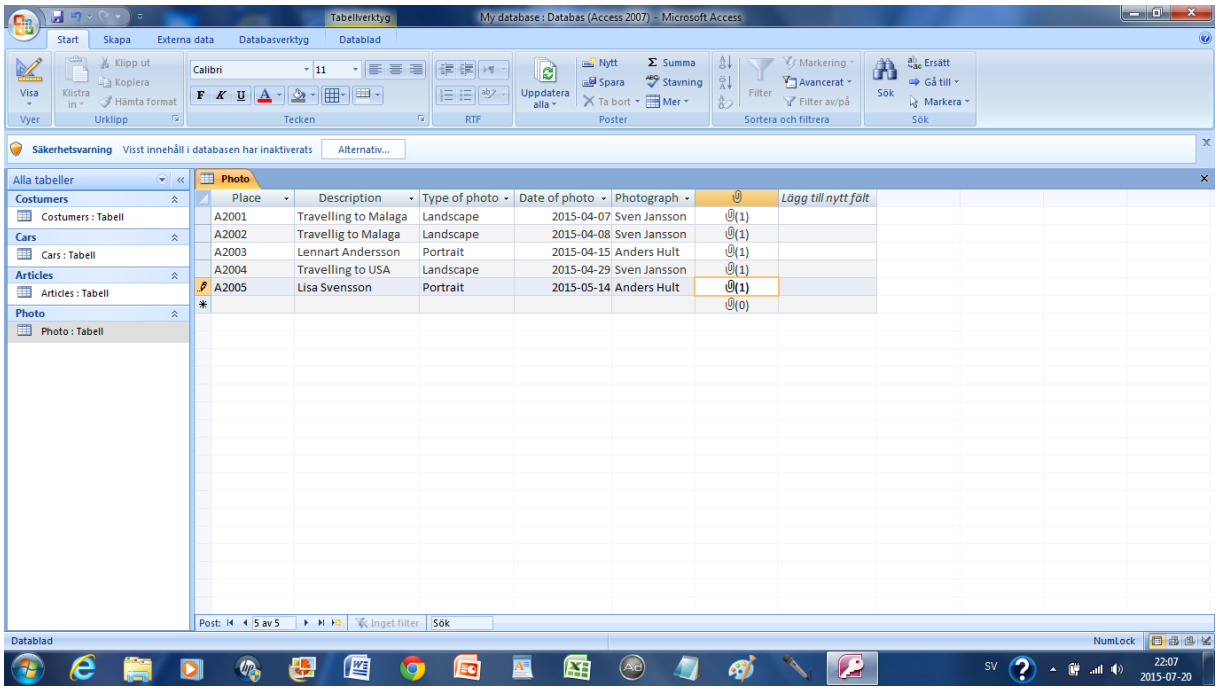
Mark phoptograph.

Size 20.

Indexed Yes copies allowed.

Photo needs no adjustment.

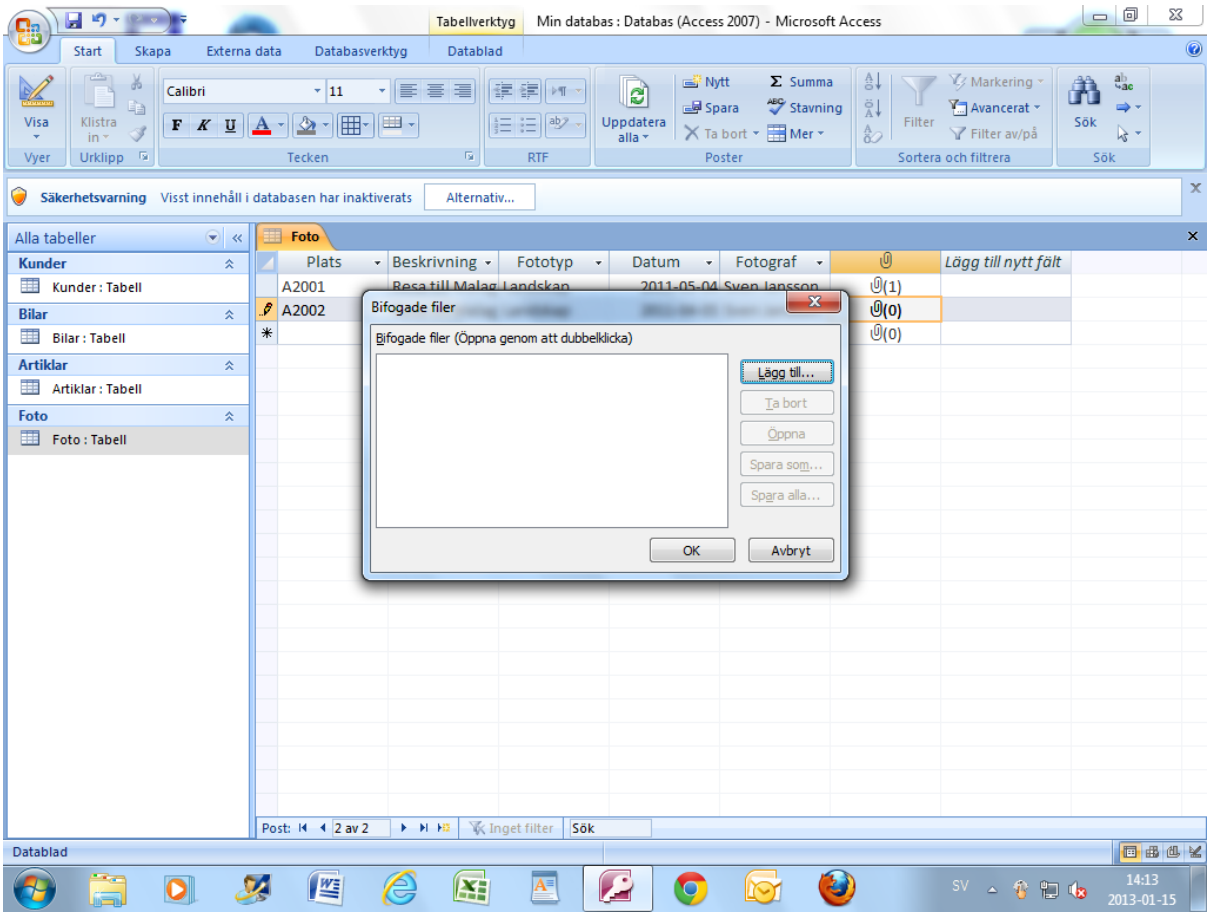
Close design of table an save as photo.



Click twice Foto: Tabell and register some photoes as in picture.

Adjust the width of field head line.

When you are in field Insert file you click twice.



Click <Add>

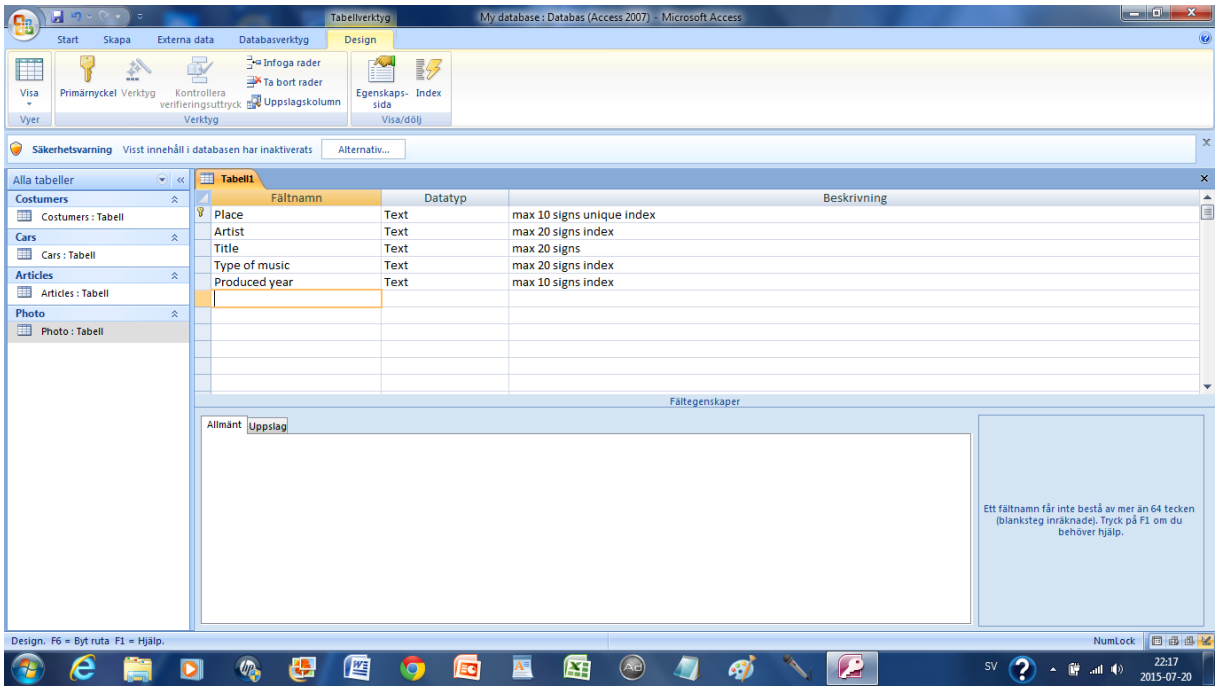
Click twice on a photo you have in your computer.

Click OK.

Close photoregister with cross.

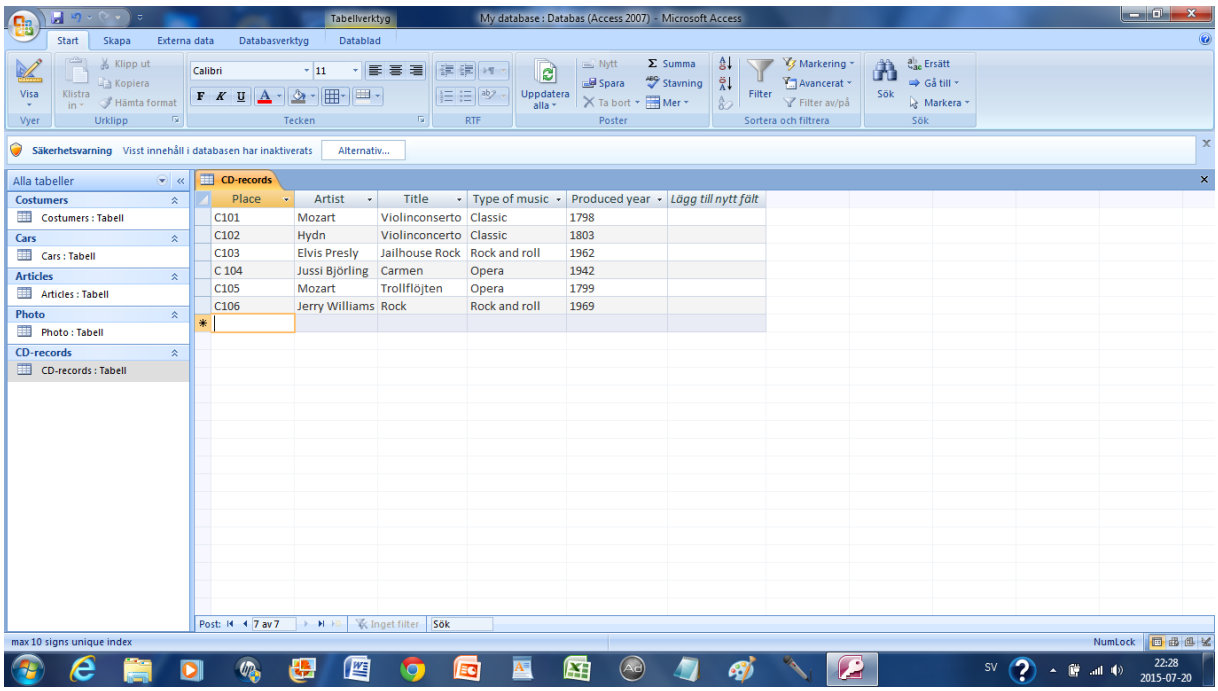
Table of CD

Clicka Create /Tables/Tabledesign in row of bottoms.



Write conditions for CD-table as in picture.

Now you probably manage Key, Size of field and Indexed in lower window without help.



Close window Tabledesign and save as CD-records.

Click twice on CD-records.

Write some CD-records as in pictures.

Close CD-register.

Forms

Til now we have been working with registers in table form field head lines are on first row and there below is every post shown as a row.

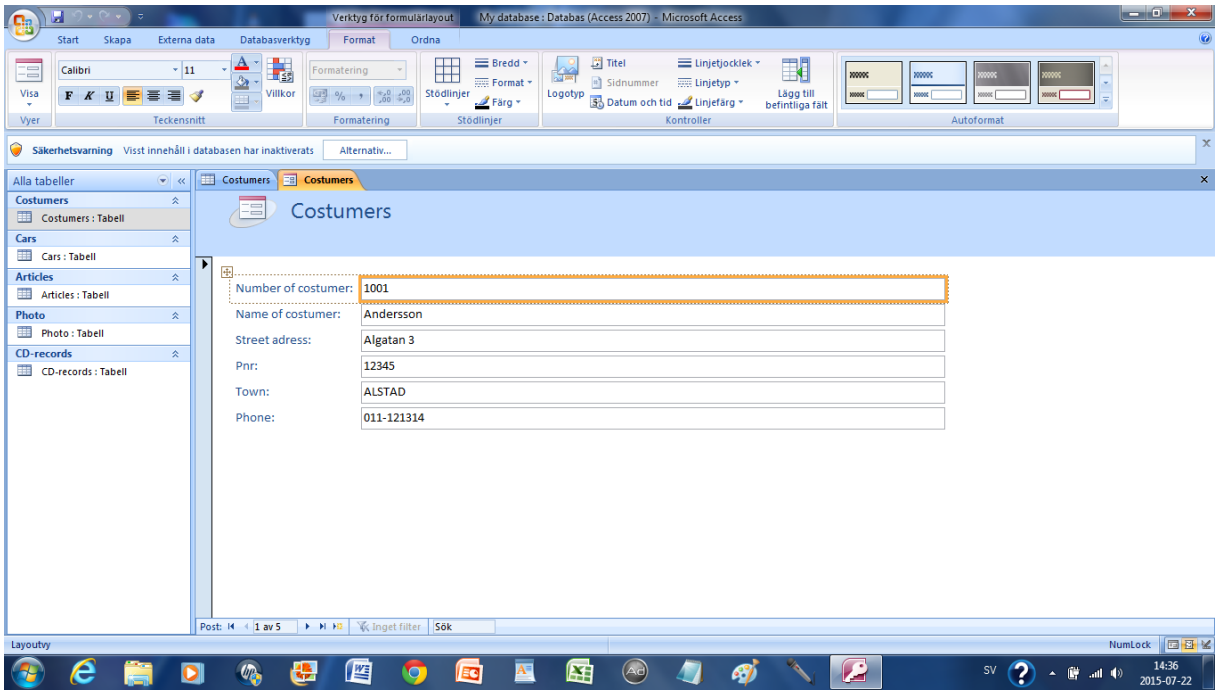
If a register concists of many fields there may be hard to get an overview of a complete post. Then you can watch only one post. This way to watch and study only one post is called a form.

Form of customers

Now you shall create a form for your register of costumers.

Markera Costumers:Table

Click Create /Form/Form.



Now you shall see a form showing first post in register costumers.

Here you have the 6 fields with data from top and down.

Scroll in your register by clicking right and left arrow on bottom of screen.

Close form and save as Costumerform.

Click twice on Customerform

Click bottom with arrow right and star on screen.

Registrate another costumer post in form.

Close form

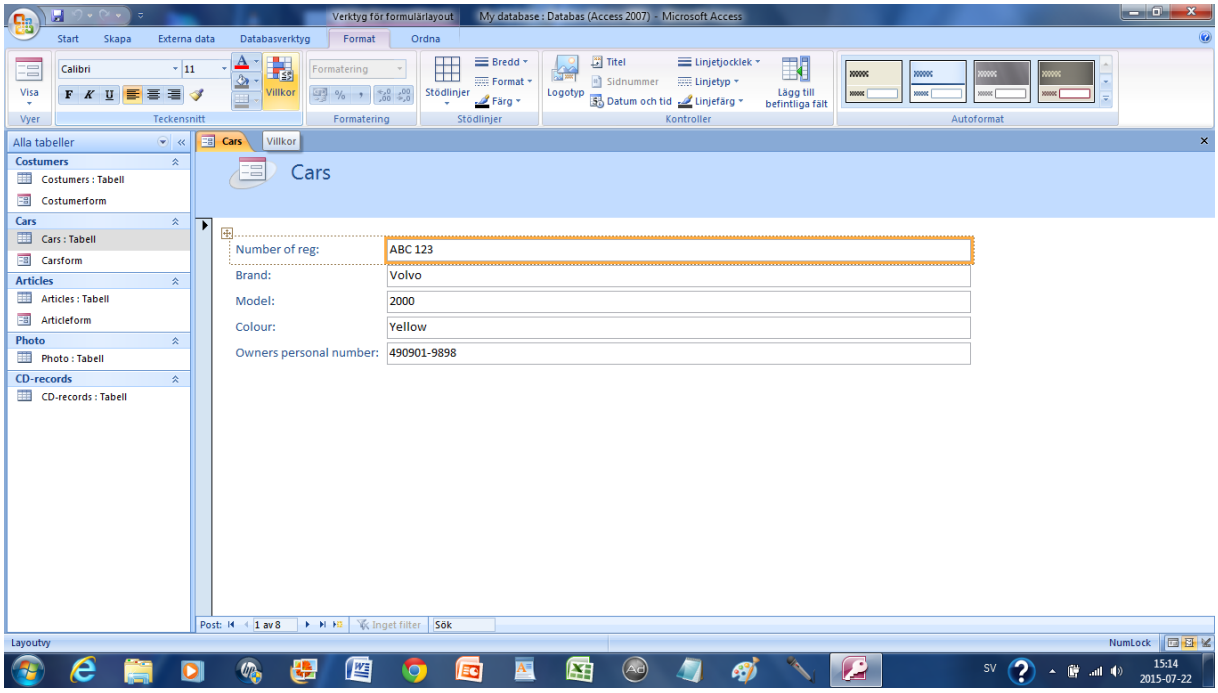
Click twice on Customer: Table and check last costumer post is i register.

Close window with costumers.

Carform

Mark Cars: Table.

Click Create/Form/Form.



Now you willl have a form showing first post in register.

Scroll in register by clicking right and left on screen.

Close window and save as Carsform.

Click twice on Carsform.

Press bottom with right arrow and star.

Add another car post and registrate in form.

Close form

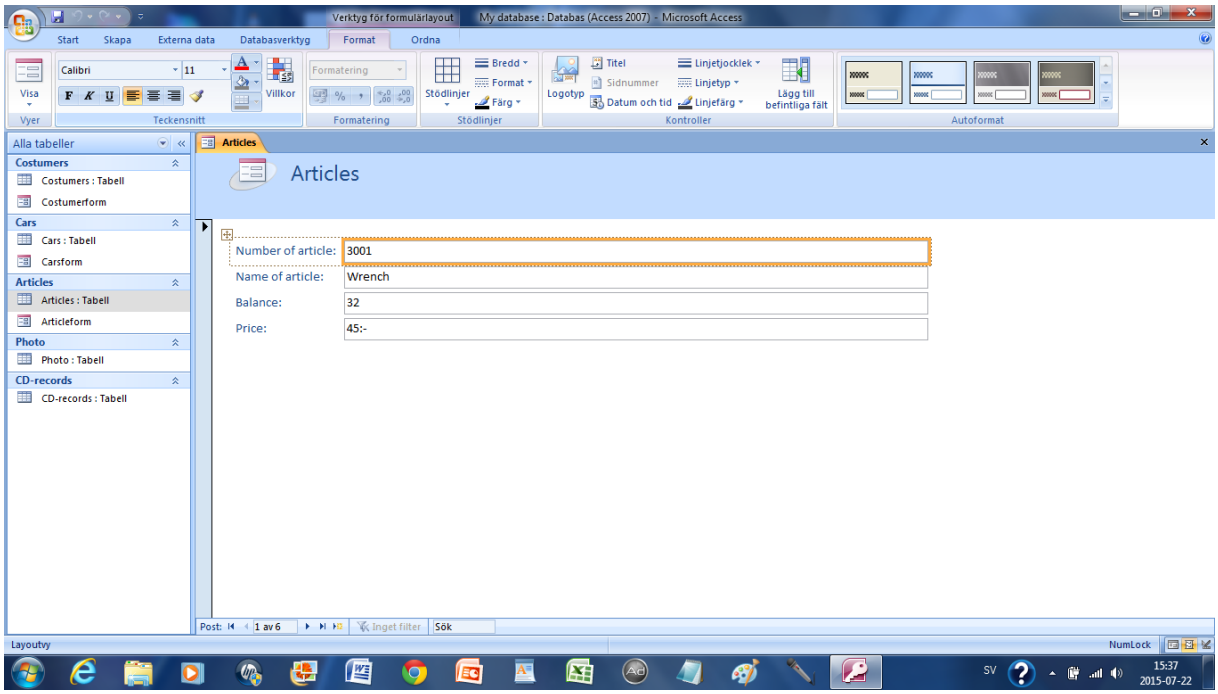
Open your car register and check last car is in register.

Close window.

Articleform

Mark Articles:Table

Click Create/Form/Form.



Now you will get a form showing first post in register articles

Scroll in your article register by clicking left and right bottom on screen.

Close window and save as Articleform.

Click twice on Articleform.

Click bottom with right arrow and star.

Registrate another article by form.

Close form

Click Articles: Table.

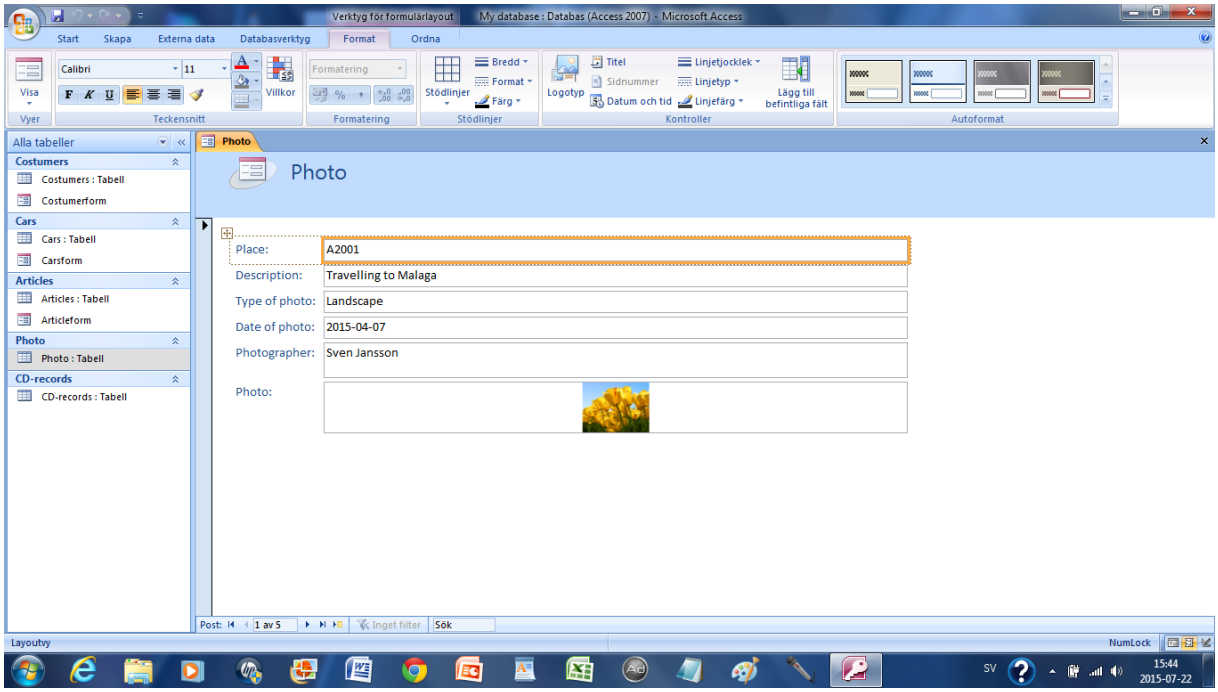
Check your last article is in the register.

Close window.

Photoform

When you are in a field with photo click twice to start window photo program to show the photo.
Mark Photo:Table

Click Create/Form/Form.



Now you will have a form showing the first post in register photo.

Scroll in your photo register by clicking left and right bottom on screen.

Close window and save as Photoform.

Click twice on Photoform.

Click bottom with right arrow and star.

Create another photopost and registrate it in form.

Close window and click Photo: Table.

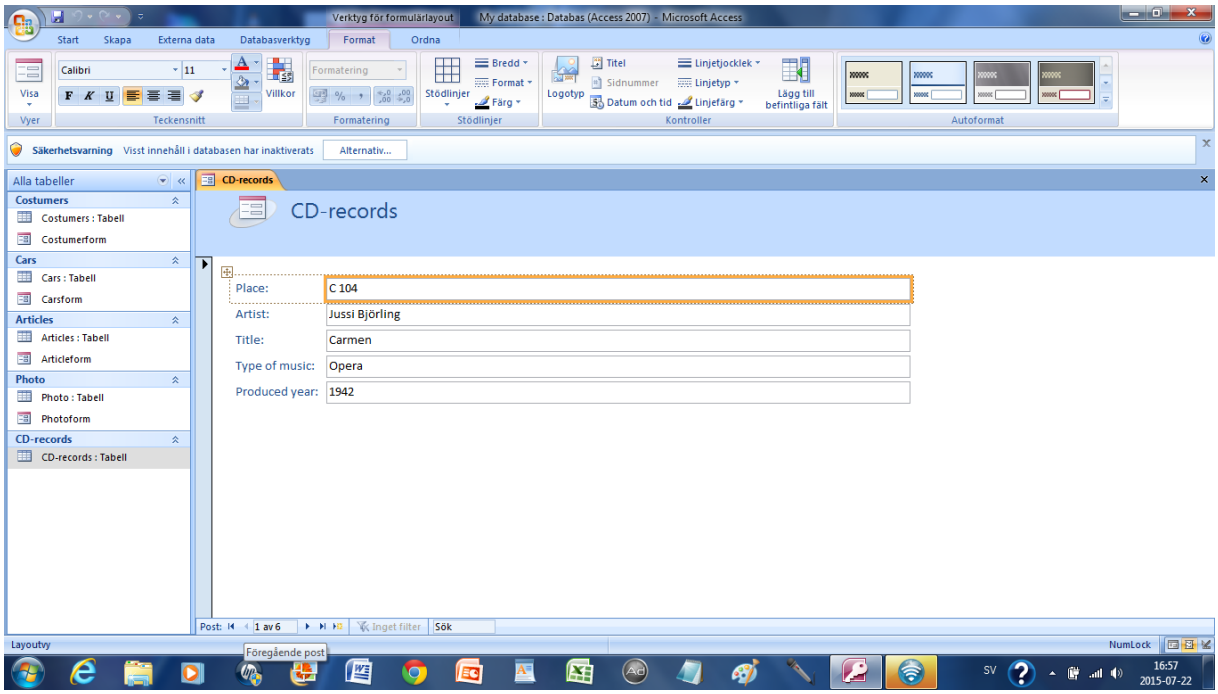
Check your last photopost is in register.

Close window.

CD-form

Mark CD-records: Table

Click Create/Form/Form.



Now you will have a form showing first post in register CD-records.

Scroll in your CD-register by clicking left and right arrow on screen.

Close window and save as CD-records form.

Click twice on CD-form.

Click bottom with arrow right and star.

Add another CD-records post registrate by form.

Close form

Click twice on CD-records: Table.

Check your last CD is in register.

Close window

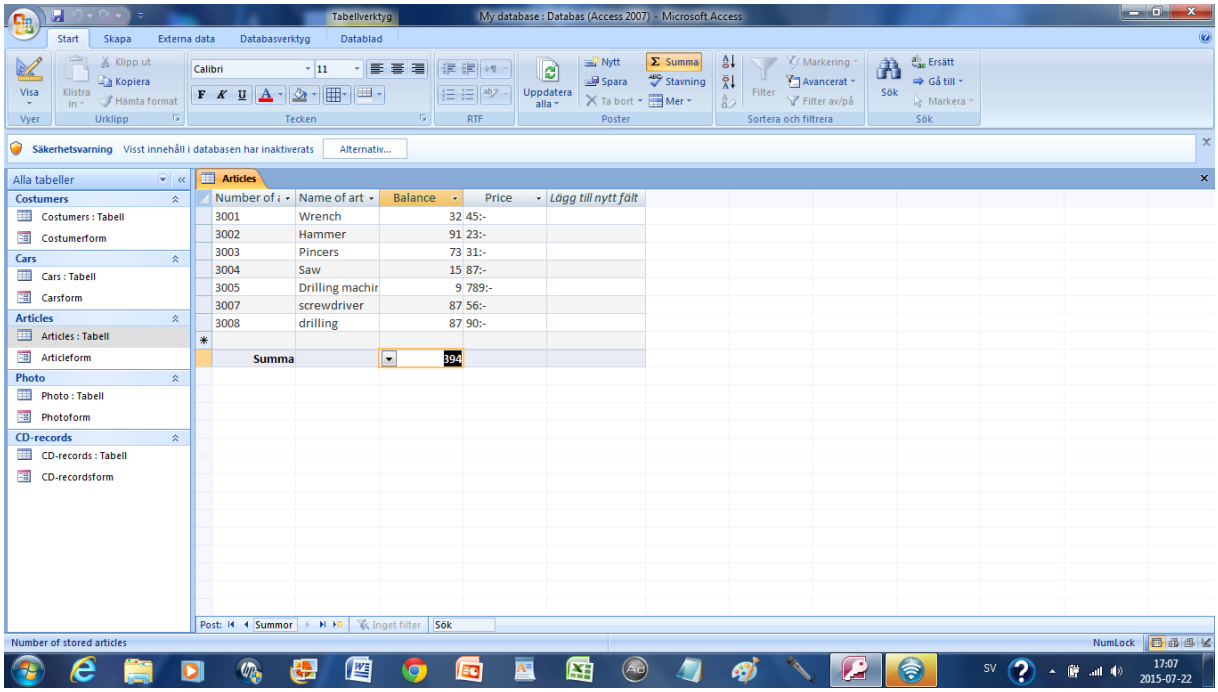
Fetch information

Now we are going examine some ways to fetch information from our registers.

We are working with very small registers but if you need to solve a problem you probably have bigger registers though you ought to try your solution on small registers at first.

How many articles are in store

Open article register.



Click Start/Balance/Sum.

Word Sum now will pop up under register.

Mark square in column Saldo under last post.

Click on the smalll arow and choose Sum.

Now you are told there are 220 articles stored.

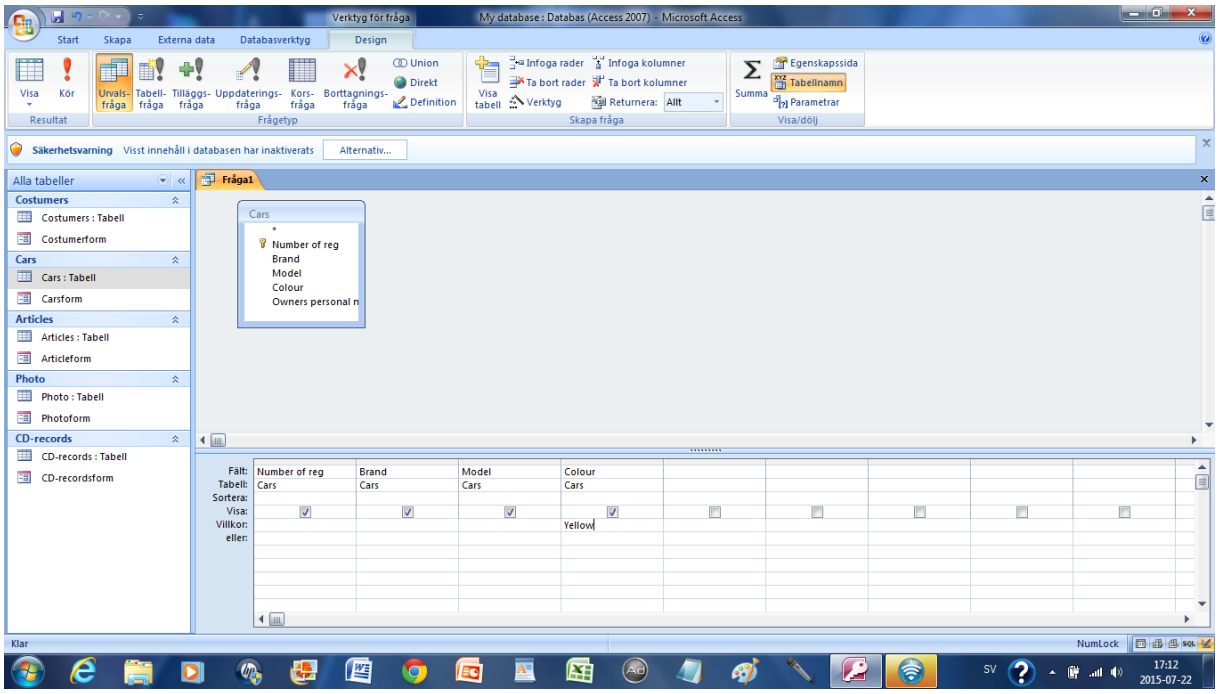
You may delete Sum by clicking Start/Balance/Sum again.

Close article register without saveing .

Hur many yellow cars have the cardealer

Clicka Cars: Table.

Click Create/Other/Designing question



Mark Cars in dialog window.

Click <Add>.

Now you will see a window with field headlines in register Cars.

Click <Close> in dialog window

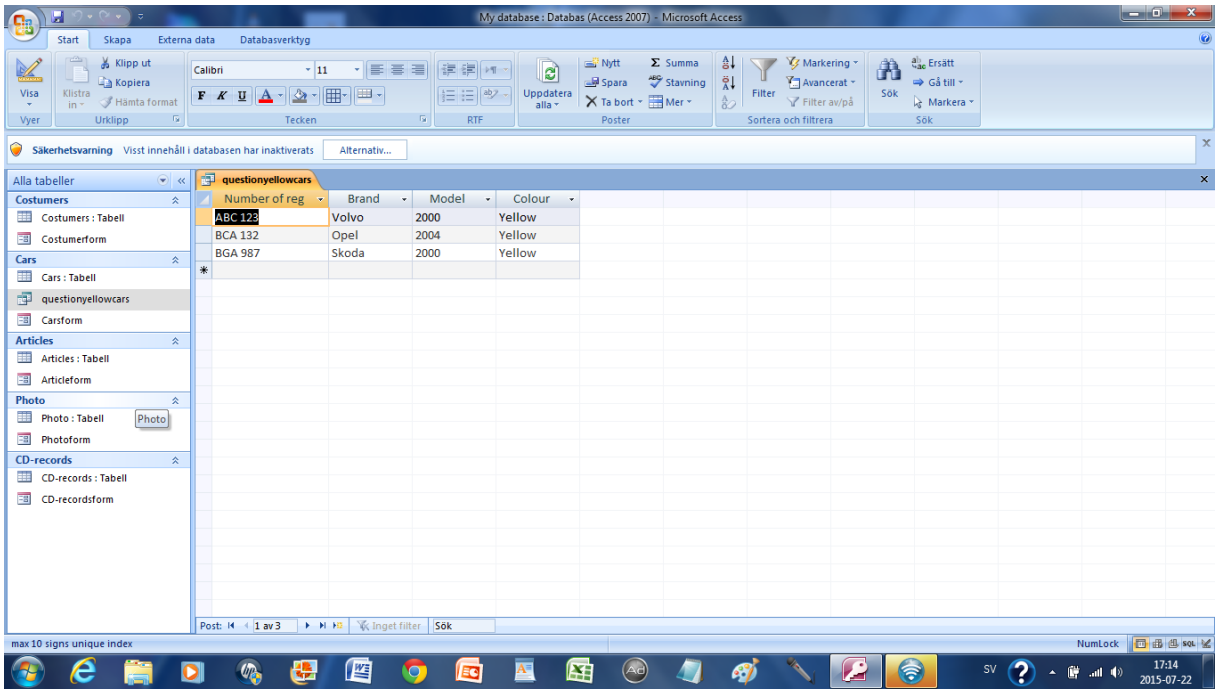
Click twice on field headlines Reg number, Trade mark, Year, and Colour.

Field headlines now willbe written i columns

Write yellow on row Conditions in column colour.

Close window question design an save as question yellow cars.

Click twice on Question Yellow cars.



Now you can see there are four yellow cars.

Which photoes have been taken by Sven Jansson

Click Photo: Table

Click Create/Other/Question design.

Mark Photo in dialog window.

Click <Add>

Now you will see a window with field head lines for register Photo.

Click <Close> in dialogwindow.

Click twice on field headlines Place, Description, Type of photo, Date, Phographer.

Field headlines now will be spread in bottom of screen.

Write Sven Jansson on row Conditions under headline Photogapher.

Close window design of question and save as Question Sven Jansson.

Click twice on Question Sven Jansson.

Now you will get the place photos by Sven Jansson has.

Close window..

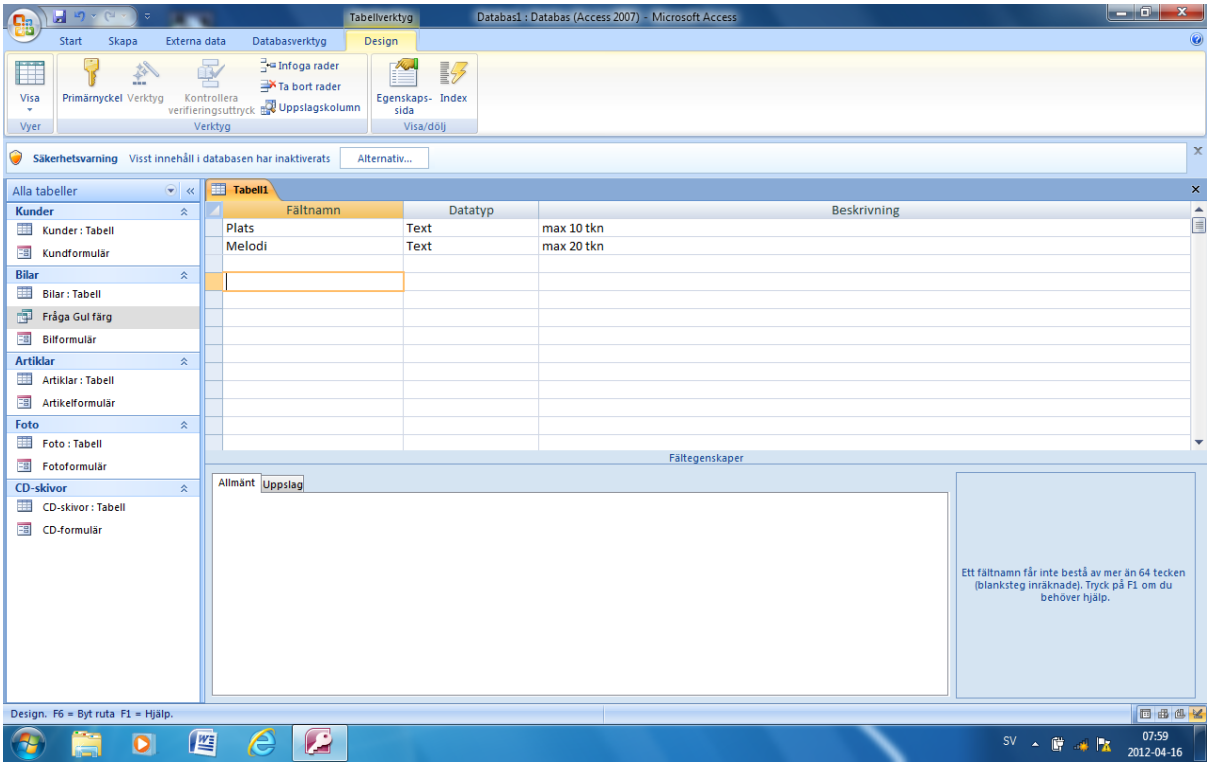
Which CD-records are with Jailhouse rock

Suppose we know that Elvis Presley and Jerry Williams have made Jailhouse Rock and we want the computer to tell us which records, in a big collection, has Jailhouse Rock.

The most simple should be to complete our CD-register with the field tunes. But if every CD has 10 tunes our CD should have 50 posts and many data should have been registrated 10 times instead of 1.

We start by creating a register of tunes.

Click Create /Tables/Table design.



Register Tunes will have two field headlines Place and melody.

Write field headlines as in picture.

Mark Place and change in lower window to size 10 and indexed No.

Mark Tunes and change in lower window to size 20 and indexed No.

Field Place in register CD-records will have a relation to field place in Tunes.

Field Place in CD-records we have earlier defined as keyfield, type of field text, with max 10 signs and unique index.This means field Place in Tunes must have type of field text and max 10 signs. Though the field must not be indexed.

Close window table design and save as Tunes.

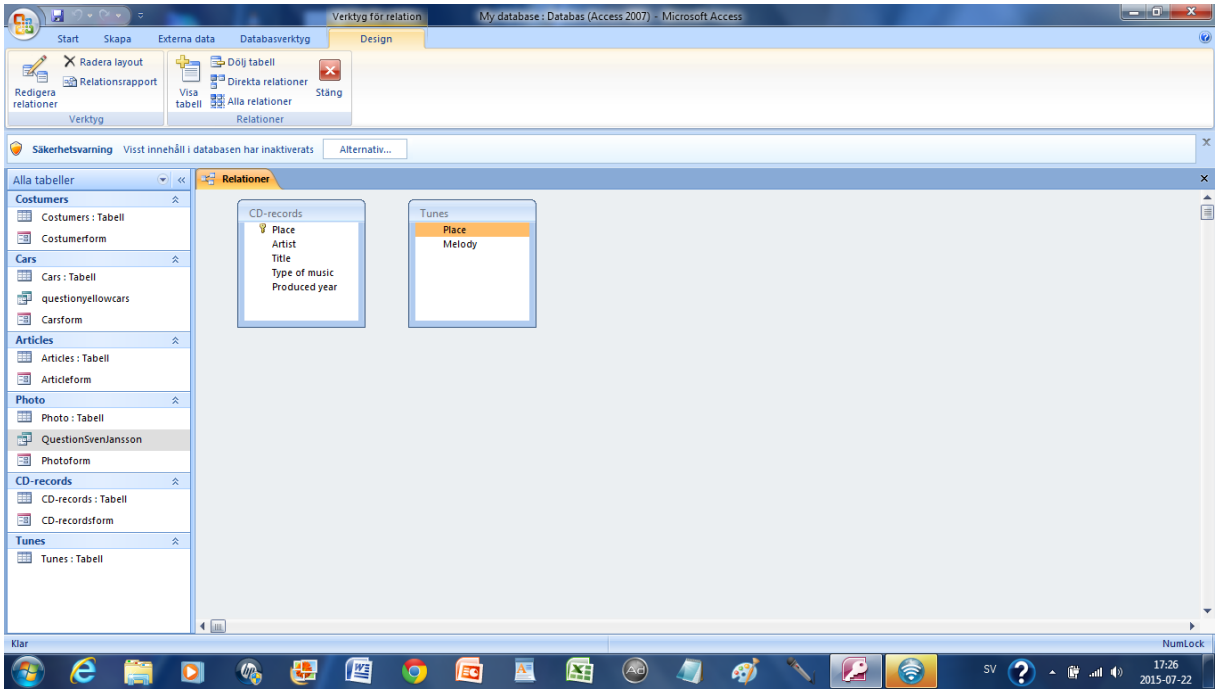
Answer No on question about primary key.

Click Databasetools/Relations.

Now you get window Show table.

Click Databasetool/Relations.

Now you se dialog window Show table.



Mark CD-records in dialog window

Click <Add>.

Now a window with field headlines for table CD-records is shown.

Mark Tunes in dialogwindow.

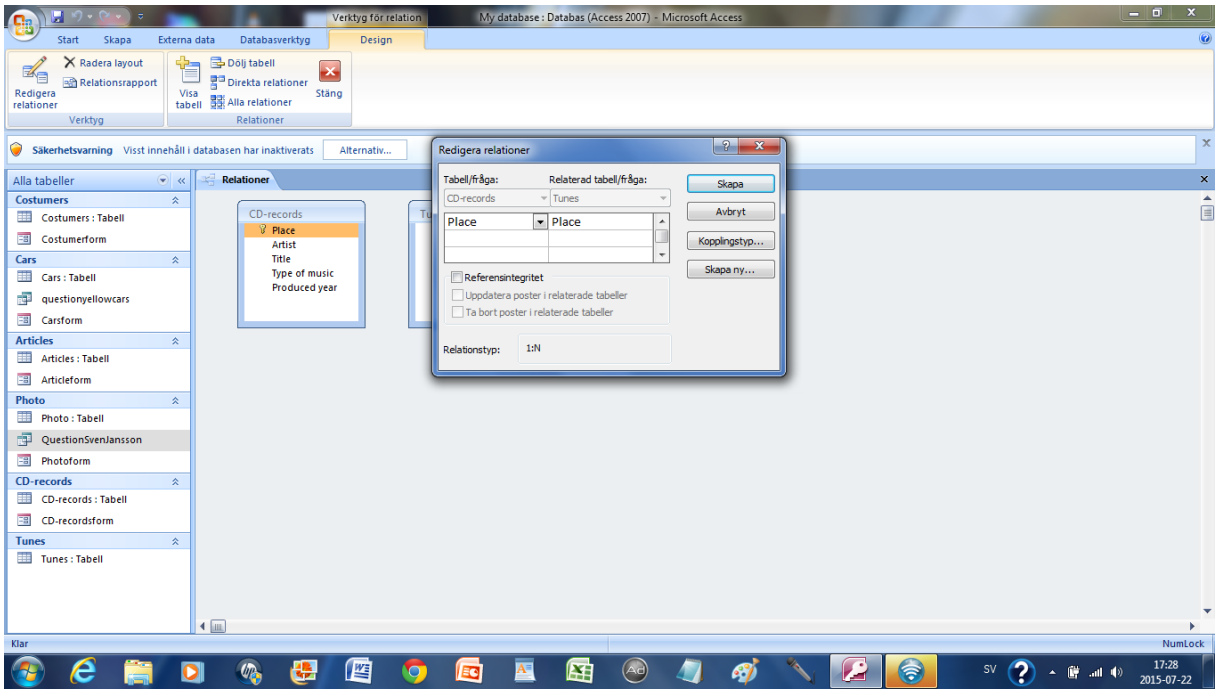
Click <Add>.

Now you see a window with field headlines for table Tunes.

Close window show table.

Now you shall create a relation between Place in CD-records and Place in Tunes.

Mark Place in CD-records, press bottom and drag to Place in Tunes.



Now you see a dialog window Edit relations.

In window you can read you have created a relation called 1:N (1 to many).

This means one record may have a relation to many posts in table Tunes.

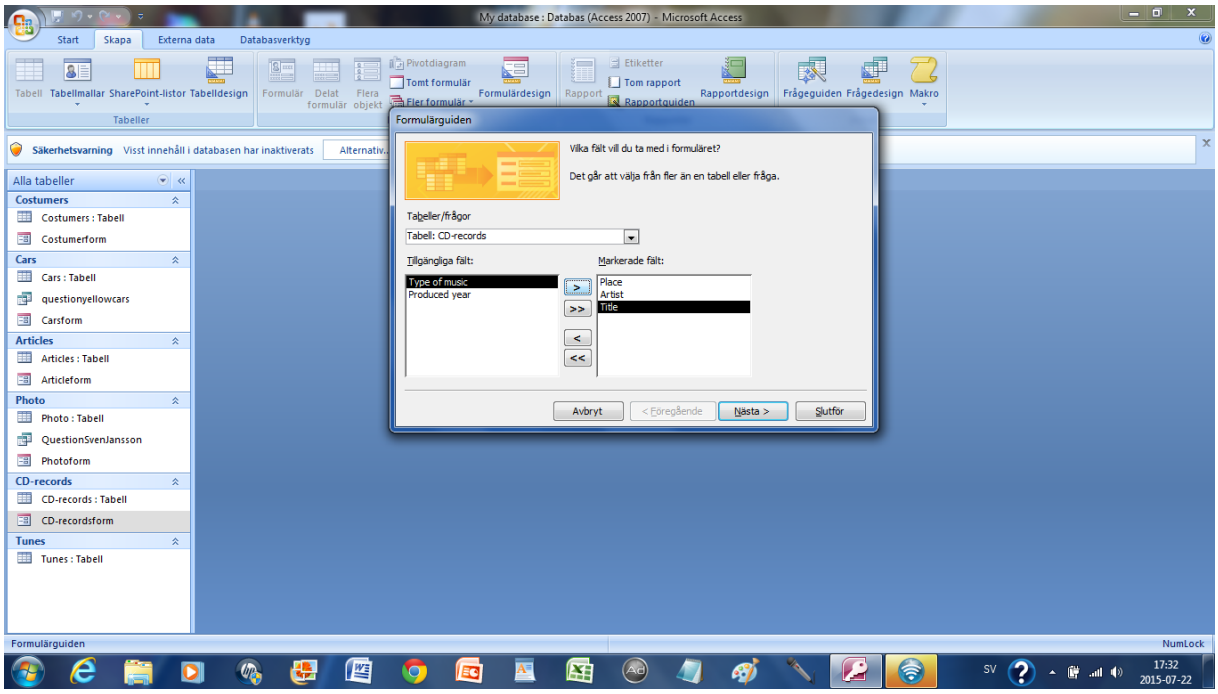
Click Create.

Now there will be a line between Place in table CD-records and Place in table Tunes.

Close window relations and save.

Mark CD-records form.

Click Create/Form/Several forms/Form guide.

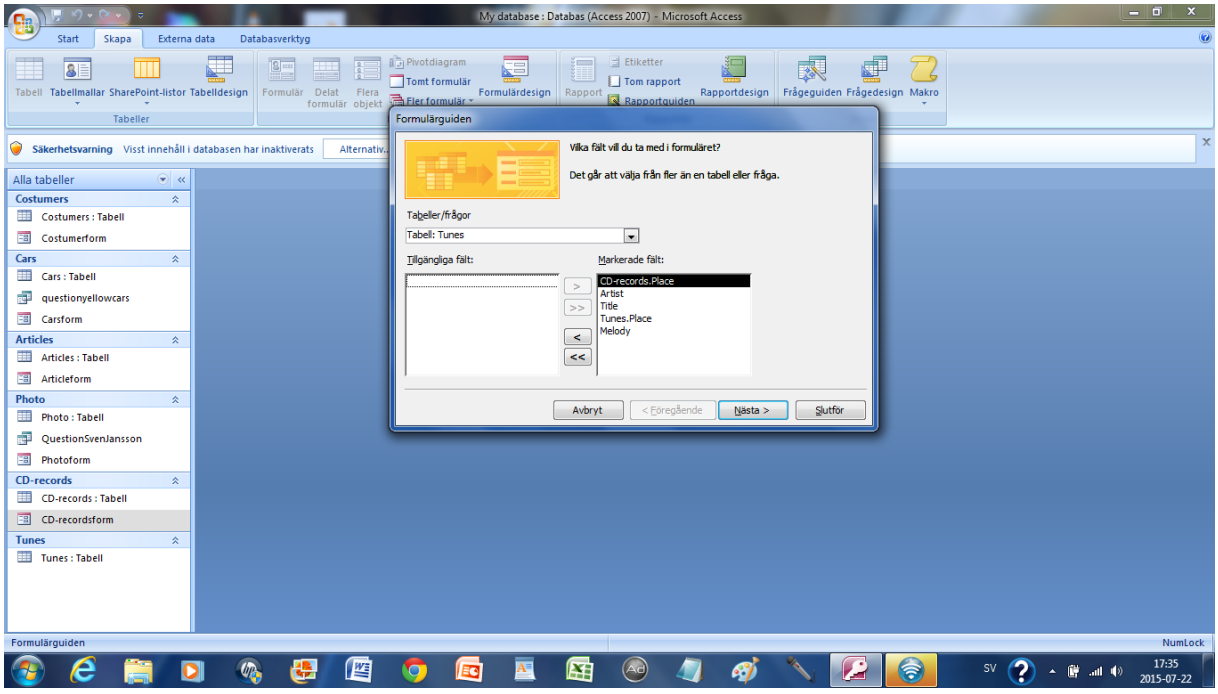


Check Table : CD-records is in field on top.

Move these fields from left to right squere by clicking right arrow.

Place, Artist and Titel

Now head lines Place, Artist and Titel will be in right square.



Make sure table Tunes is field on top-

Move these fields from left to right.

Place and Tune

Now left square will be empty and all headlines will be in right square.

Click <Next>

Check by CD-records is marked.

Check Form with secondform is marked.

Click <Next>.

Mark table and click <Next>.

Check Office is marked.

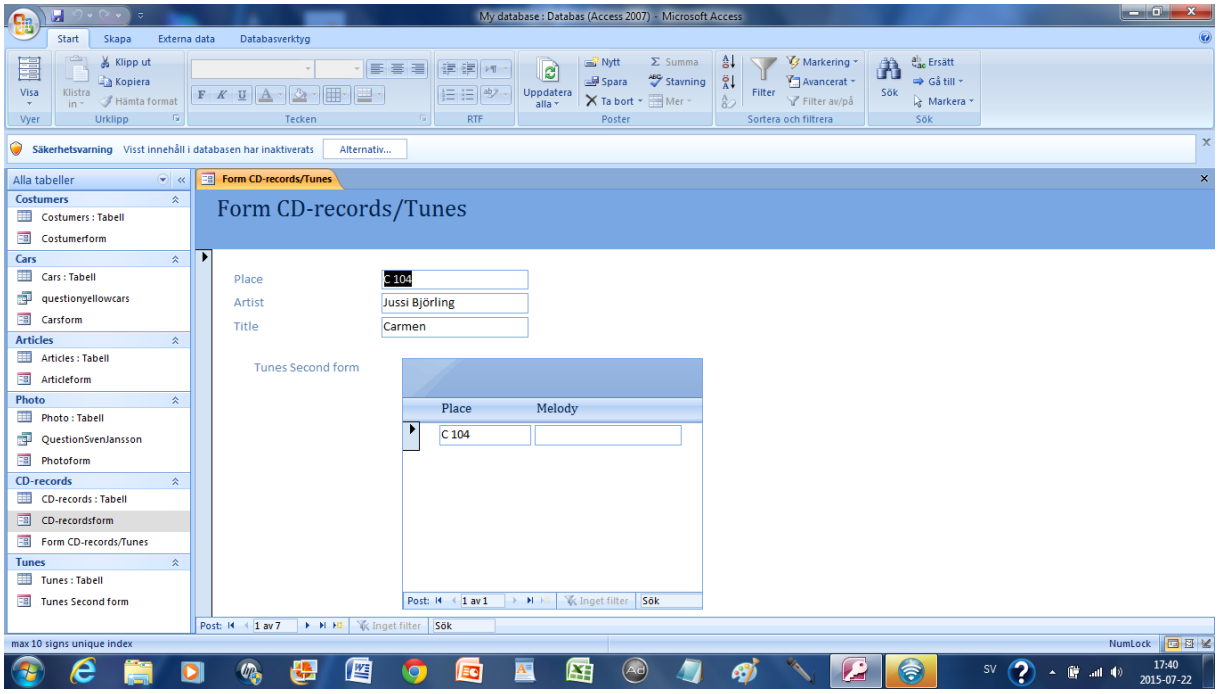
Click <Next>.

Change Formfield text to Form CD-records/Tune. Second form will be Tunes second form.

Check Open form to show or write info is marked.

Click <Finish>.

Your form will look like this.



Click twice on Form CD-records/Tunes again.

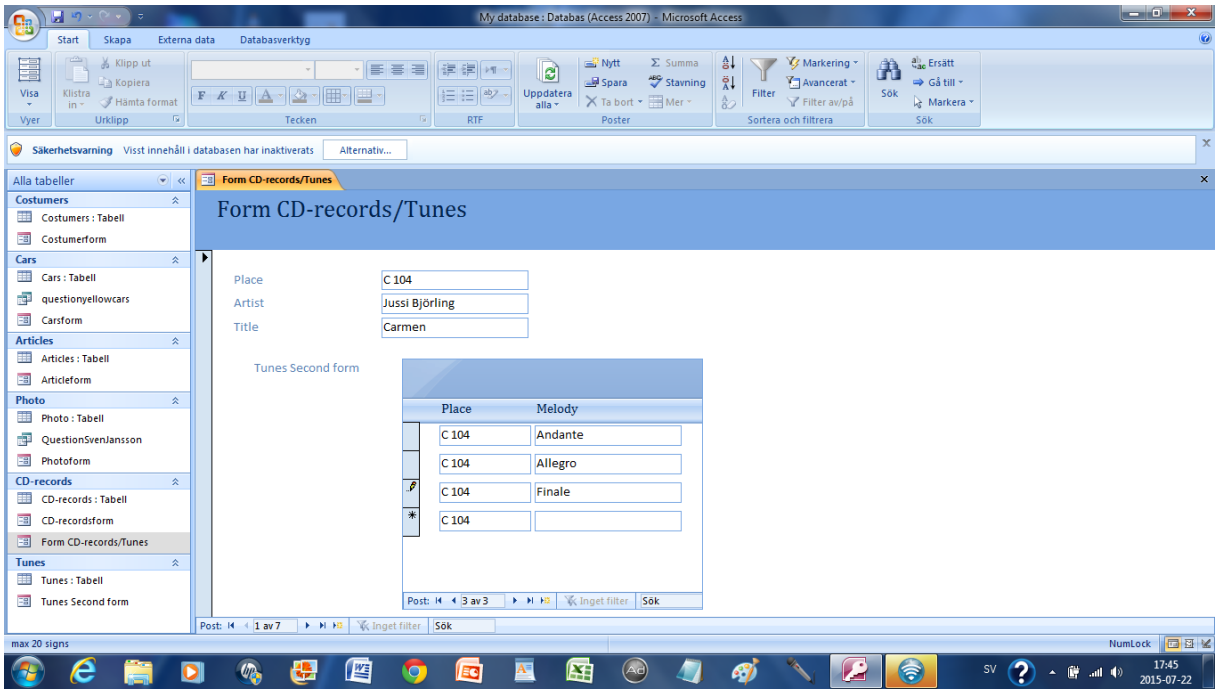
Now you have 2 forms, one first form showing CD-records where you can scroll among CD-records

You also have a second form where you can registrate tunes.

Scroll as usual among CD-records by using bottoms with arrows down the screen.

Notice place is automaticly registrated in tunes. This was the field which was commun for the two tables.

Make sure the first record from table CD-records is shown.



Registrate the tunes there are on first record.

Go on and registrate all tunes on all CD-records.

Check Jailhouse rock is on one Elvis and one Jerry Williamsrecord.

Close Form CD-records/Tunes.

Conclusion

One often create two registers with a relation betweeen these to get a proper handeling of registers.
Condition is a common field is keyfield and unique index in one of these registers and type of field and length of field is the same in both registers.

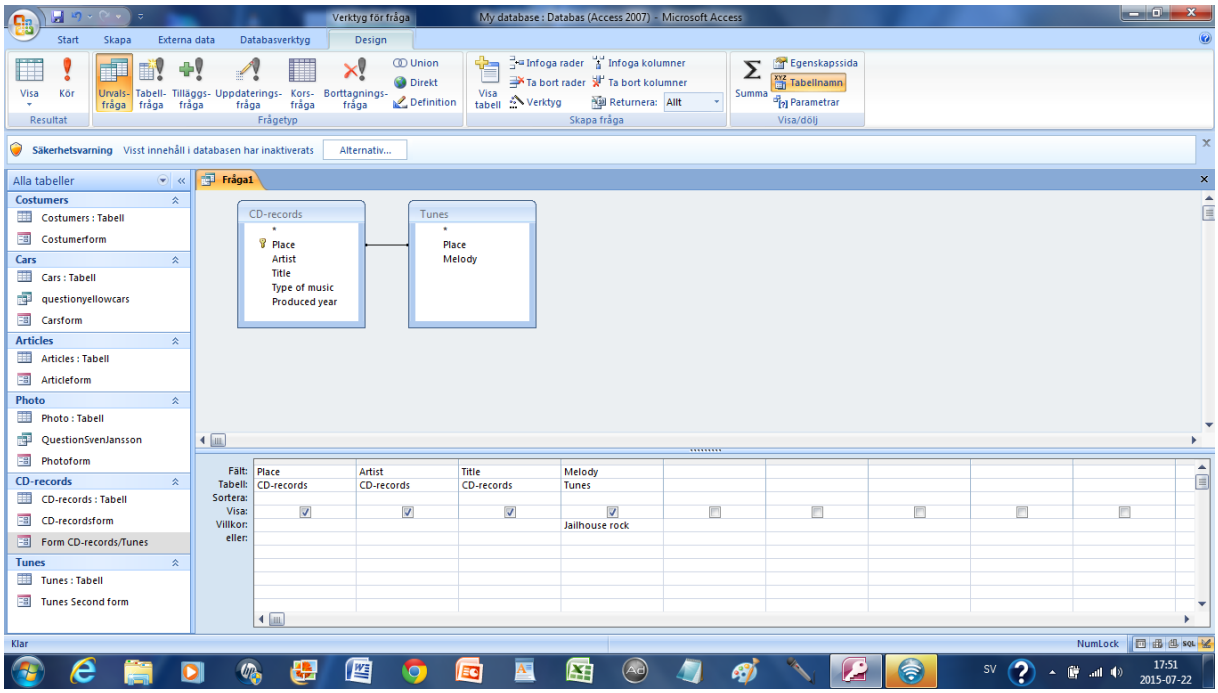
Clicka Create/Other/Question design

Now you will see dialogwindow Show table.

Marka CD-records and click <Add>

Mark Tunes and click <Add>

Close dialogwindow Show table



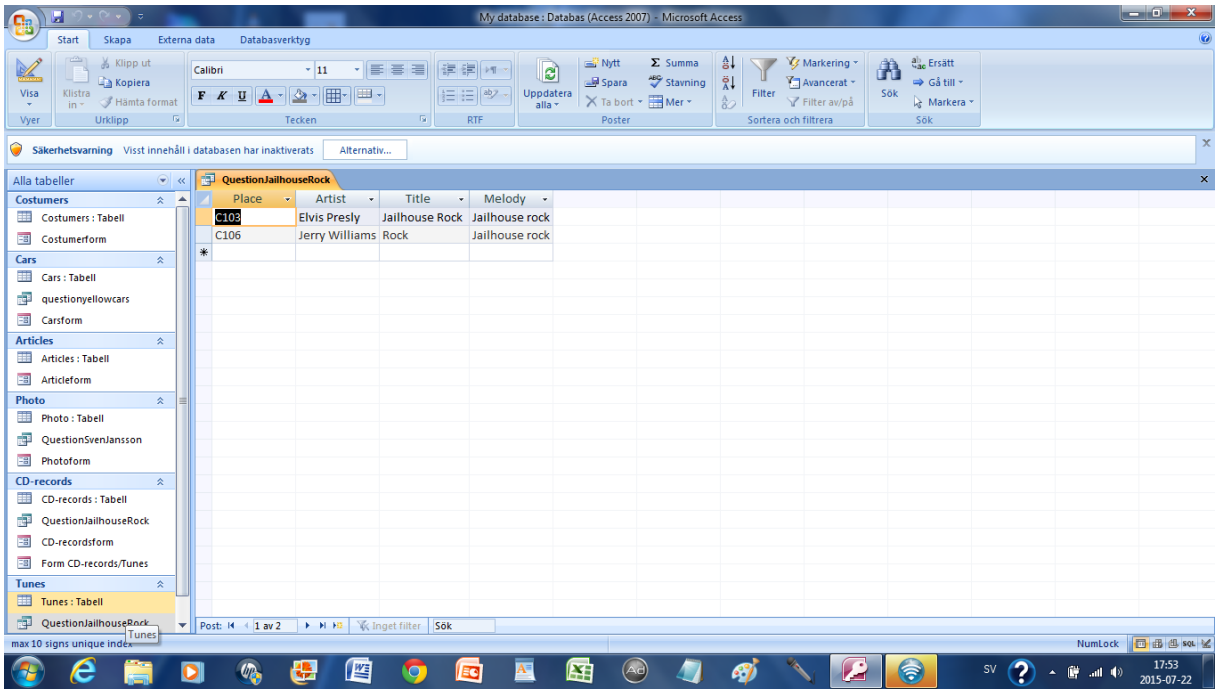
Click twice on fieldheadlines Place, Artist, Title in square CD-records.

Click twice on fieldheadline Tune in square Tunes.

Write Jailhouse Rock on row Conditions in columnn Tune.

Close window and save as Question Jailhouse Rock.

Click twice on Question Jailhouse rock.



Now you get the message Jailhouse Rock is on records with place C102 and C106.

In step 10 you can continue working with med access.