

A Simple Magazine Article Database

About OpenOffice Base ..

Can act as an all in one database or a front end to a separate SQL database.

All-in-one database includes an HSQLDB embedded DBMS written in java. This is suitable for smaller single user databases. It also means that you will need a Java Runtime Environment installed, which usually will be installed as a dependency when OO Base is installed.

OpenOffice Base is not as mature as the other components of OpenOffice, but seems quite OK for small projects. At this stage, avoid complex mission critical applications, or use a separate SQL database as a back end.

It is preferable to use OOo Base 3.0 or later.

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Step One – Working out what you need.

Pencil and paper time – or fire up your favourite text editor.

You want to list the things you need to keep track of, together with any assumptions you are going to make, and make sure they are recorded in some format you can easily refer to.

Broadly speaking, you will need to decide the names and characteristics of tables and fields.

A field can be considered as an item of information which can have particular attributes and a value. For example, a field could be called 'Magazine Name' and consist of text.

A table can be considered as a collection of related items of information which relate to a common item or event.

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Specifying a Simple Magazine Database.

Requirements:

- Can accept different magazines
- Can search articles by month and year of issue
- Can search articles by keyword and/or author

Assumptions:

- Magazines in our database are published monthly.
- Date Issued will be recorded as a date with the month as a 3 character abbreviation and a year recorded as a 4 digit number.
- There may be one or more keywords associated with a particular article.

From the above considerations, we can make a first pass at defining our tables and fields.

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Tables and fields.

Table : Articles

Fields: Magazine Name - text
Issue Month - text
Issue Year - integer
Article Title - text
Keyword/s - text
Article Authour/s - text
Start Page - integer

It is a good idea to give some thought to adopting some simple conventions which you will observe when naming database fields. For example ..

magazine_name, issue_month, issue_year etc **or**
MagazineName, IssueMonth, IssueYear etc

Step Two – set up the Articles table

Use the option – “Create table in design view” , and fill in the data referring to the table and field definitions above. (See next slide.)

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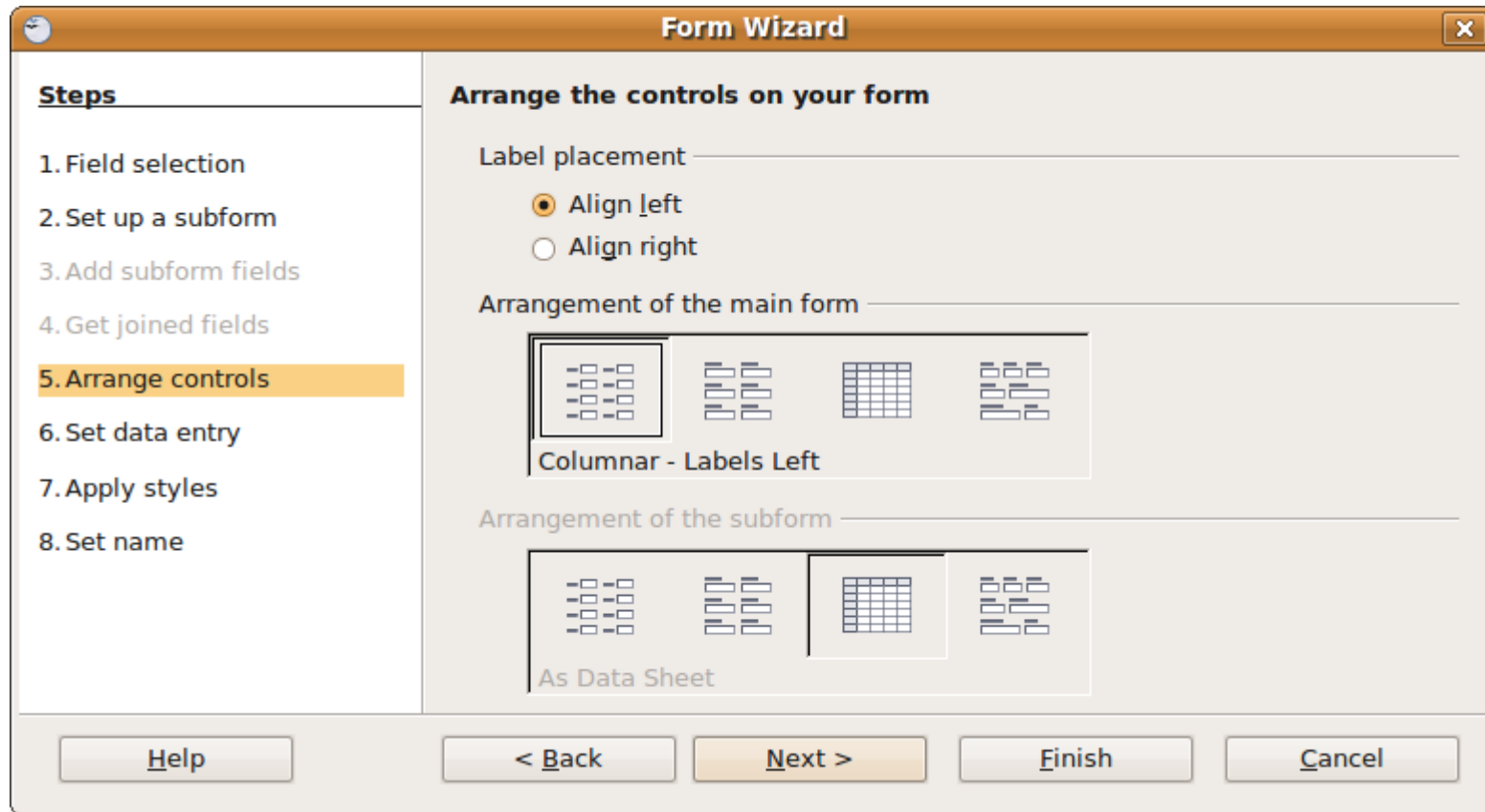
Step Three – Create a data entry form and enter some data.

Use the form Wizard to create a form for data entry and maintenance. The suggested steps are illustrated below.

The screenshot shows the 'Form Wizard' dialog box. On the left, a 'Steps' list includes: 1. Field selection (highlighted), 2. Set up a subform, 3. Add subform fields, 4. Get joined fields, 5. Arrange controls, 6. Set data entry, 7. Apply styles, and 8. Set name. The main area is titled 'Select the fields of your form'. It features a 'Tables or queries' dropdown menu set to 'Table: Articles'. Below this are two lists: 'Available fields' containing 'article_id' and 'Fields in the form' containing 'magazine_name', 'issue_month', 'issue_year', 'article_title', 'keywords', 'article_authours', and 'start_page'. The 'magazine_name' field is highlighted in the right list. Between the lists are four arrow buttons: '>', '>>', '<<', and '<<'. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'. A note at the bottom of the main area states: 'Binary fields are always listed and selectable from the left list. If possible, they are interpreted as images.'

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As we do not require a subform here, we skip to step 5 in the wizard.



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Here we want to allow full read and write access, but other options are possible to provide “look but don't touch” access etc.

The image shows a 'Form Wizard' dialog box with a title bar and a close button. On the left, a 'Steps' list contains eight items, with '6. Set data entry' highlighted in yellow. The main area is titled 'Select the data entry mode' and contains four radio button options. The first option is unselected, and the second is selected. Below the second option are three unselected checkboxes. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Form Wizard

Steps

1. Field selection
2. Set up a subform
3. Add subform fields
4. Get joined fields
5. Arrange controls
- 6. Set data entry**
7. Apply styles
8. Set name

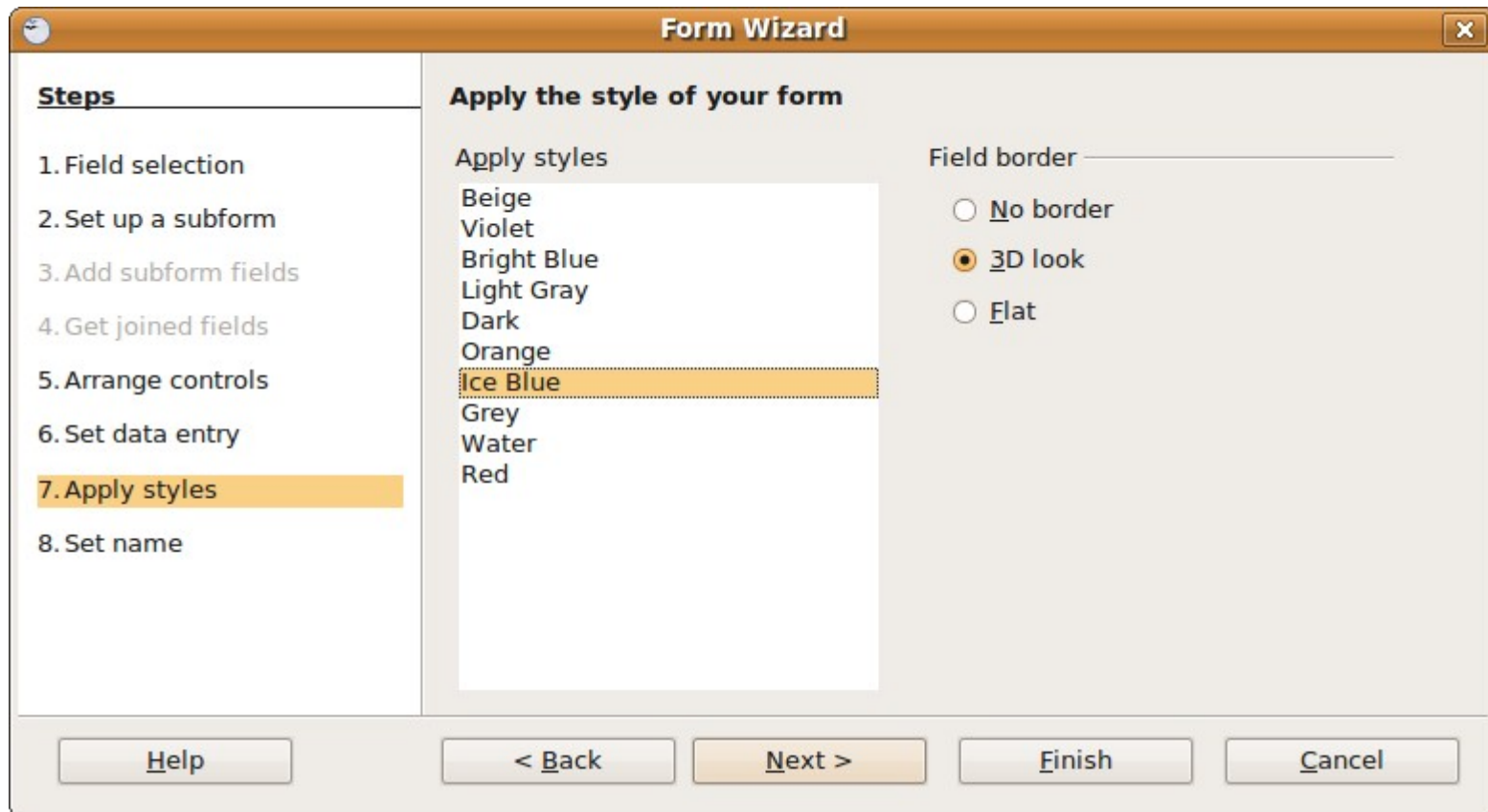
Select the data entry mode

- The form is to be used for entering new data only. Existing data will not be displayed
- The form is to display all data
 - Do not allow modification of existing data
 - Do not allow deletion of existing data
 - Do not allow addition of new data

Buttons: Help, < Back, Next >, Finish, Cancel

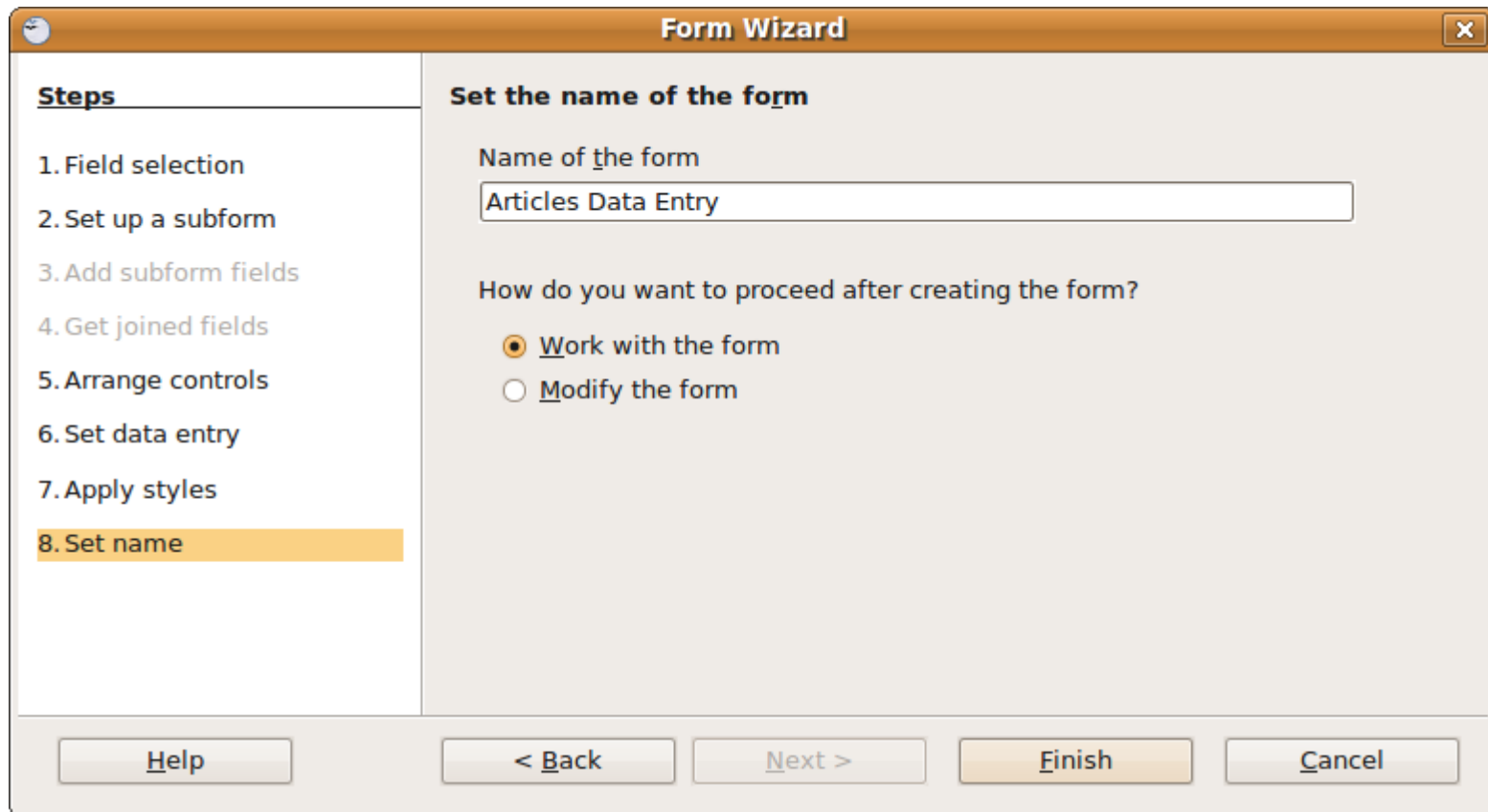
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In this step, you can ask the wizard to apply some simple styles to your form. These can be changed later if required.



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Change the default Form Name to something more descriptive. If you know you want to change the form layout, you can select “Modify the form” here.



The screenshot shows a dialog box titled "Form Wizard" with a close button in the top right corner. On the left, a "Steps" list contains eight items, with "8. Set name" highlighted in orange. The main area is titled "Set the name of the form" and contains a text input field with "Articles Data Entry" and a question "How do you want to proceed after creating the form?" with two radio button options: "Work with the form" (selected) and "Modify the form". At the bottom, there are five buttons: "Help", "< Back", "Next >", "Finish", and "Cancel".

Form Wizard

Steps

1. Field selection
2. Set up a subform
3. Add subform fields
4. Get joined fields
5. Arrange controls
6. Set data entry
7. Apply styles
- 8. Set name**

Set the name of the form

Name of the form
Articles Data Entry

How do you want to proceed after creating the form?

Work with the form
 Modify the form

Help < Back Next > Finish Cancel

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This is the result from running the wizard – functional but needing some layout changes.

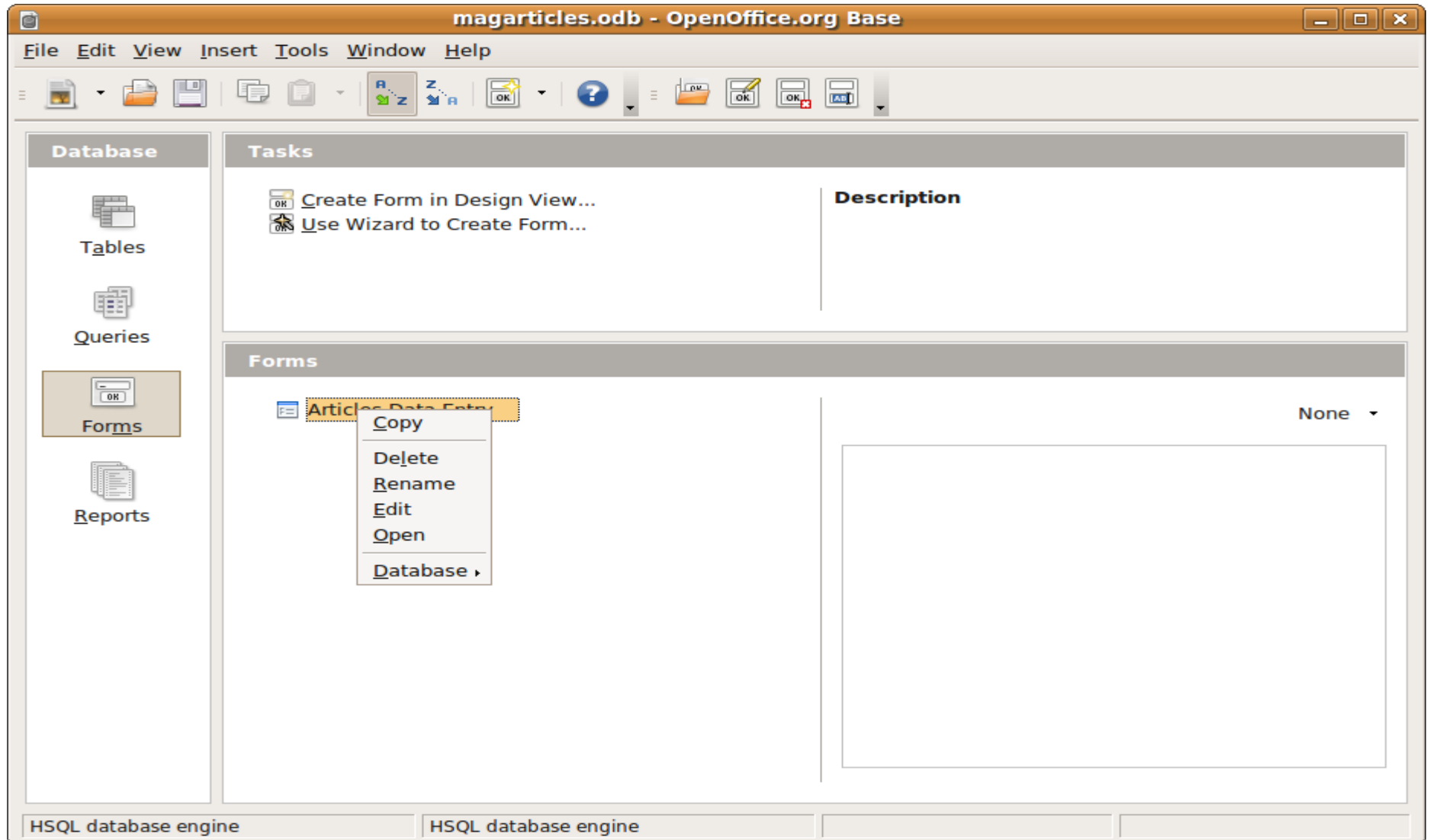
The screenshot shows the OpenOffice.org Base: Form Design window for a database named 'magarticles.odt'. The window title is 'magarticles.odt : Articles Data Entry (read-only) - OpenOffice.org Base: Form Design'. The menu bar includes File, Edit, View, Insert, Format, Table, Tools, Window, and Help. The toolbar contains various icons for file operations, editing, and navigation. The main area displays a form with the following fields:

magazine_name	<input type="text"/>
issue_month	<input type="text"/>
issue_year	<input type="text"/>
article_title	<input type="text"/>
keywords	<input type="text"/>
article_authours	<input type="text"/>
start_page	<input type="text"/>

The status bar at the bottom shows 'Record 1 of 1', 'Page 1 / 1', 'Default', and 'STD'.

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Close the basic form you have just generated using the Form Wizard, and re-open in Edit mode. This can be done by selecting 'Edit' from the right click menu on the main database screen, as shown below.



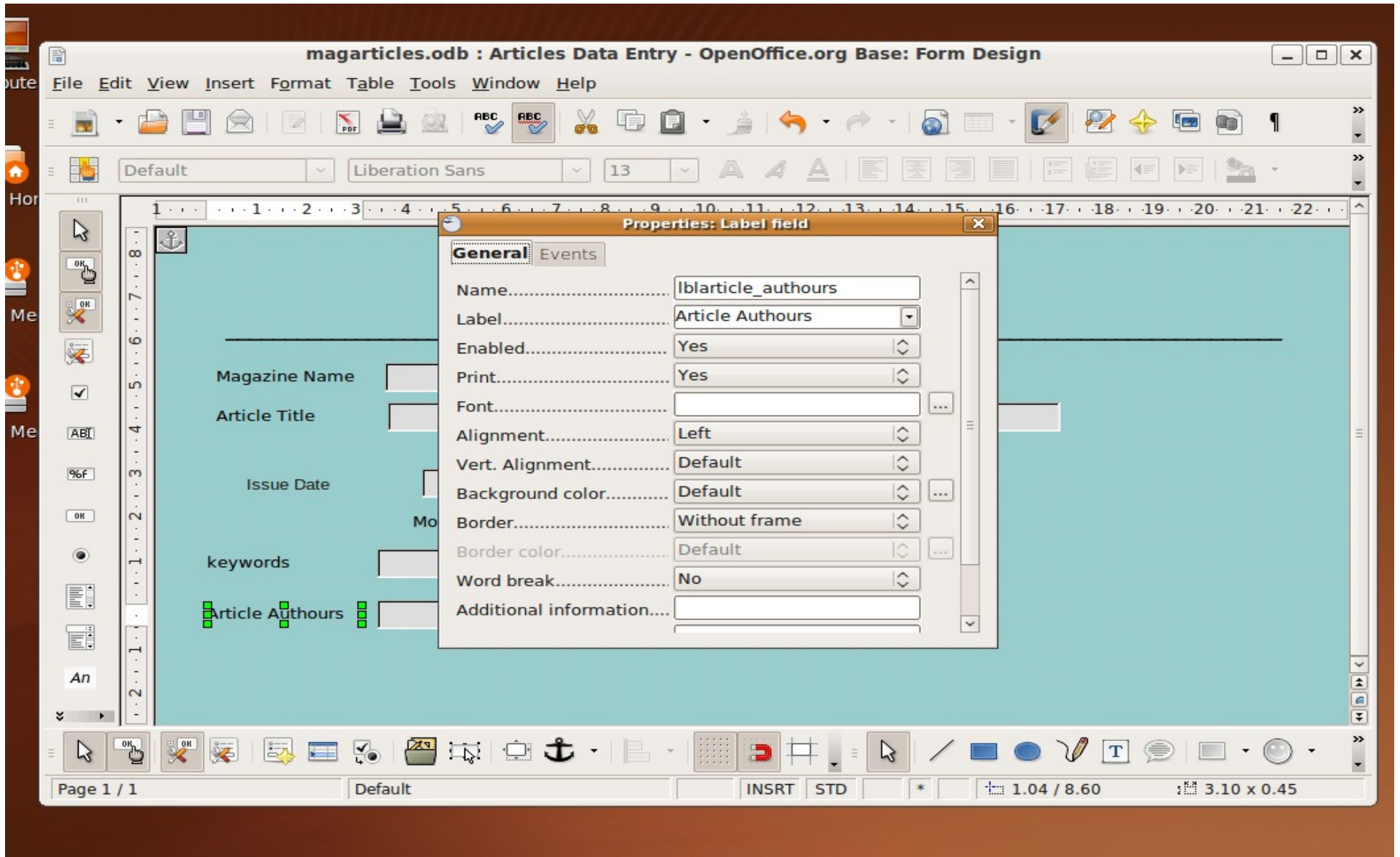
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You can now change the positions of the fields and their labels, as well as the text in the labels. Some tips on making changes to the form layout ..

- Clicking on the field or its' related label will select both the label and the data entry field. To select one or the other, hold the 'Ctrl' key down while clicking on the field or label.
- To move a field or label, select as detailed above, and drag to the desired position. Sometimes the drag can be a bit touchy, so you may want to use the Ctrl/Z key to undo a move.
- To change the label text, use Ctrl/click to select the label, and right click on it. Choose the 'Control' item, and a Properties dialog box will pop up. Here, you can change the label text by clicking in the 'Label' field and making the changes you want. (See next screenshot).
- You can add extra text to the form, either by adding a text box or simply typing in text at a chosen position in the form. You may need to experiment a little to see what works best.

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Changing the text in the article_authors field label.



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You might end up with a form layout something like this ...

The screenshot shows the OpenOffice Base: Form Design window for a database named 'magarticles.odb'. The window title is 'magarticles.odb : Articles Data Entry - OpenOffice.org Base: Form Design'. The menu bar includes File, Edit, View, Insert, Format, Table, Tools, Window, and Help. The toolbar contains various icons for file operations, editing, and formatting. The form design area has a light blue background and contains the following elements:

- Magazine Article Database** (Title)
- Data Entry Form** (Subtitle)
- Magazine Name** (Text label) and a text input field.
- Article Title** (Text label) and a text input field.
- Issue Date** (Text label) and three input fields for **Month**, **Year**, and **Start Page**.
- keywords** (Text label) and a text input field.
- Article Authours** (Text label) and a text input field.

The status bar at the bottom shows 'Page 1 / 1', 'Default', and 'INSRT STD'.

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Use this form for initial data entry. When you have some data (say between 12 and 20 rows) entered, Check that the find facility works OK.

The screenshot shows the OpenOffice Base: Form Design window for a database named 'magarticles.odb'. The window title is 'magarticles.odb : Articles Data Entry (read-only) - OpenOffice.org Base: Form Design'. The menu bar includes File, Edit, View, Insert, Format, Table, Tools, Window, and Help. The toolbar contains various icons for file operations, editing, and navigation. The main area displays a form titled 'Magazine Article Database' with a subtitle 'Data Entry Form'. The form fields are as follows:

Field	Value
Magazine Name	Linux Format
Article Title	Desktop Paradise - Xfce
Issue Date	Jul 2008 41
Month	Jul
Year	2008
Start Page	41
keywords	Xfce Compiz
Article Authours	Graham Morrison

The status bar at the bottom shows 'Page 1 / 1', 'Default', and 'STD'. The record navigation bar indicates 'Record 1 of 11 *'.

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Step Four – Set up a simple report

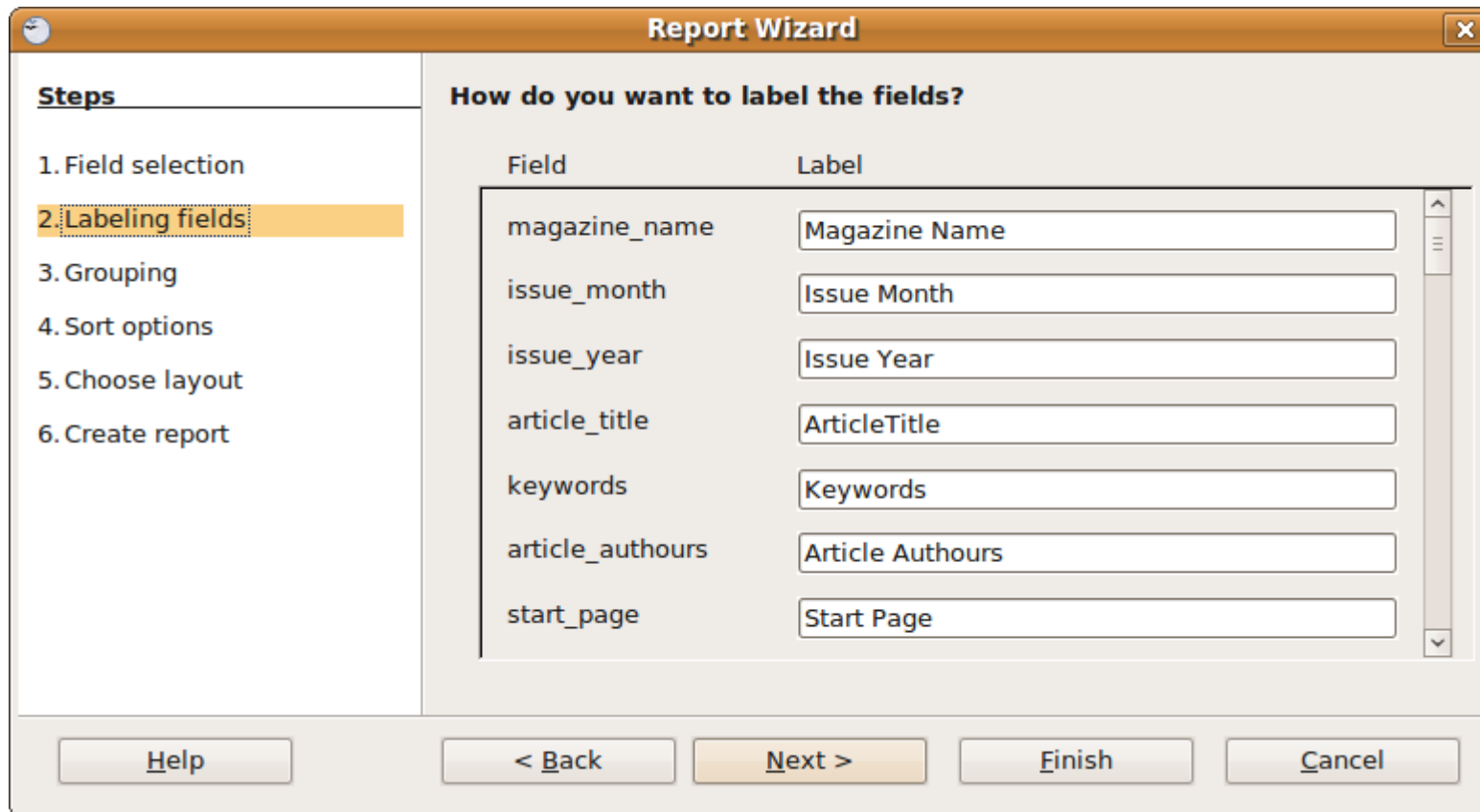
You can use the report wizard to create a simple report. For more customised reports you may want to install the Sun Report Builder, an OOo extension. An example of a simple report is shown in screenshots below ..



Note we have left out the `article_id` from the reported items.

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Here we can change the text in the report labels.

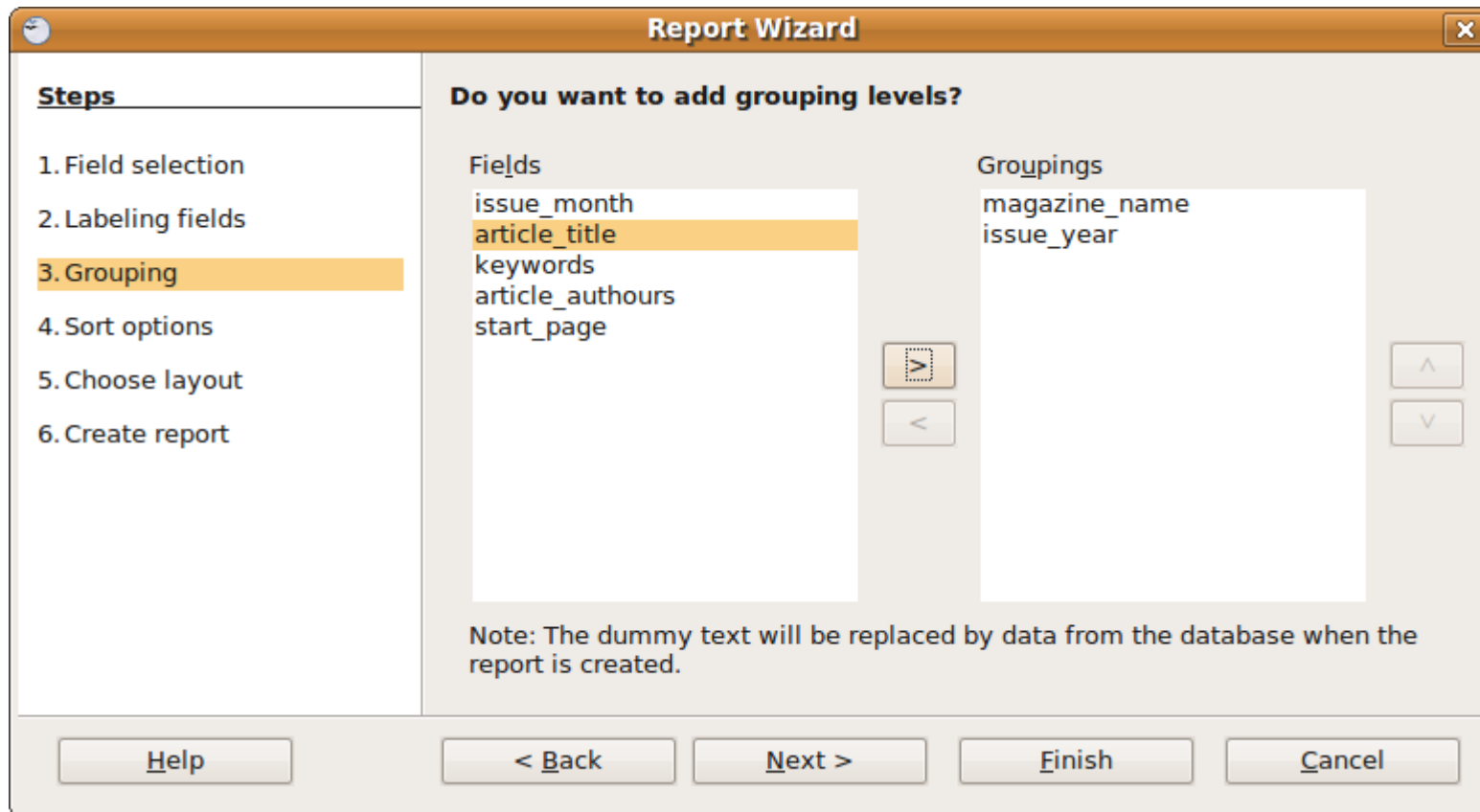


The screenshot shows a 'Report Wizard' dialog box with a sidebar on the left and a main area on the right. The sidebar lists six steps: 1. Field selection, 2. Labeling fields (highlighted), 3. Grouping, 4. Sort options, 5. Choose layout, and 6. Create report. The main area is titled 'How do you want to label the fields?' and contains a table with two columns: 'Field' and 'Label'. The table lists seven fields with their corresponding labels in text boxes: magazine_name (Magazine Name), issue_month (Issue Month), issue_year (Issue Year), article_title (ArticleTitle), keywords (Keywords), article_authours (Article Authours), and start_page (Start Page). At the bottom of the dialog are five buttons: Help, < Back, Next >, Finish, and Cancel.

Field	Label
magazine_name	Magazine Name
issue_month	Issue Month
issue_year	Issue Year
article_title	ArticleTitle
keywords	Keywords
article_authours	Article Authours
start_page	Start Page

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Next, we specify how report items will be grouped.



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Sorting criteria are chosen here ..

The screenshot shows a 'Report Wizard' dialog box with a sidebar on the left and a main area on the right. The sidebar, titled 'Steps', lists six steps: 1. Field selection, 2. Labeling fields, 3. Grouping, 4. Sort options (highlighted in orange), 5. Choose layout, and 6. Create report. The main area is titled 'According to which fields do you want to sort the data?' and contains four rows of sorting options. Each row has a 'Sort by' label, a dropdown menu, and two radio buttons for 'Ascending' and 'Descending'. The first row is 'Sort by' with 'magazine_name' selected and 'Ascending' selected. The second row is 'Then by' with 'issue_year' selected and 'Descending' selected. The third row is 'Then by' with 'issue_month' selected and 'Ascending' selected. The fourth row is 'Then by' with 'start_page' selected and 'Ascending' selected. At the bottom of the dialog are five buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Report Wizard

Steps

1. Field selection
2. Labeling fields
3. Grouping
4. Sort options
5. Choose layout
6. Create report

According to which fields do you want to sort the data?

Sort by Ascending Descending

Then by Ascending Descending

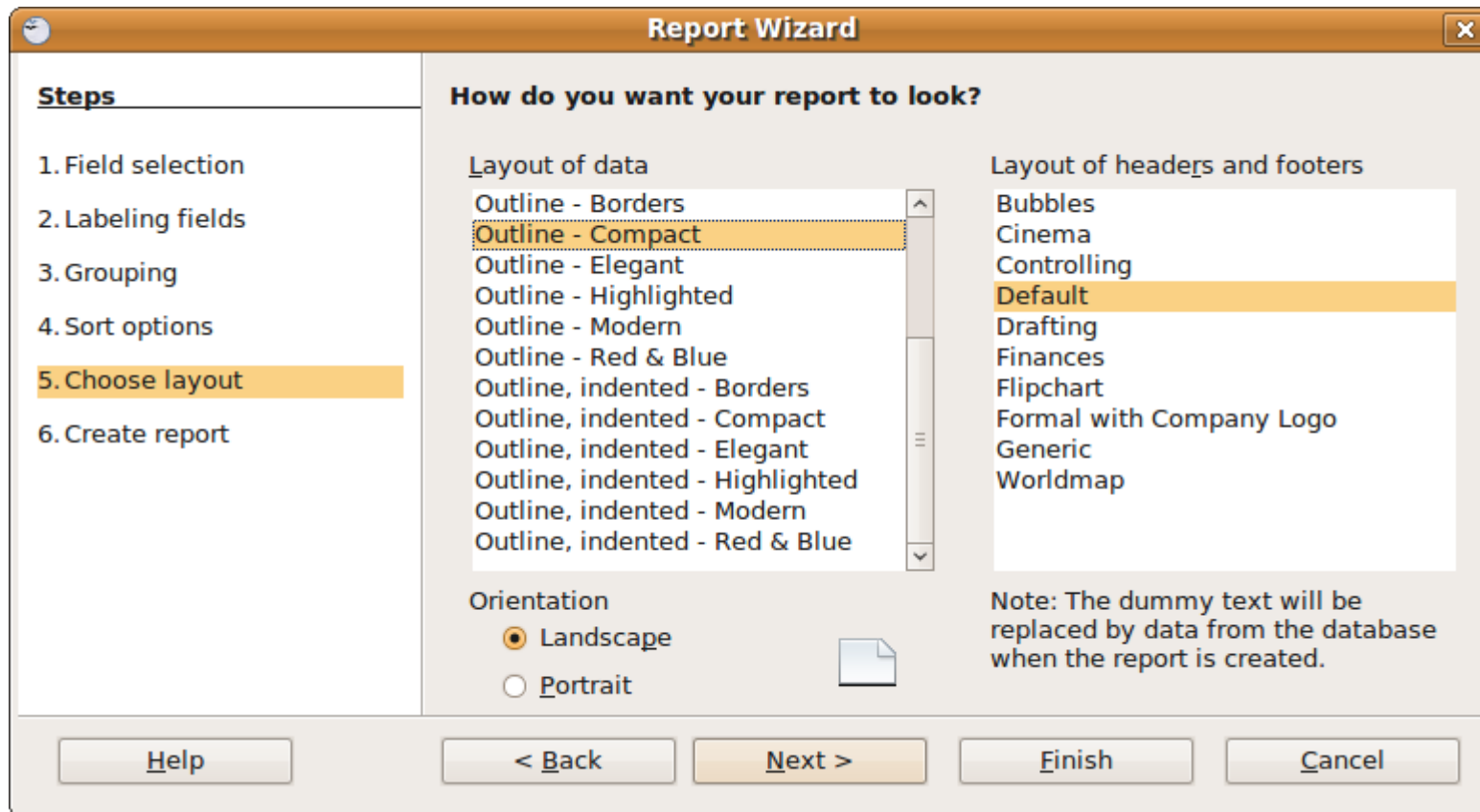
Then by Ascending Descending

Then by Ascending Descending

Buttons: Help, < Back, Next >, Finish, Cancel

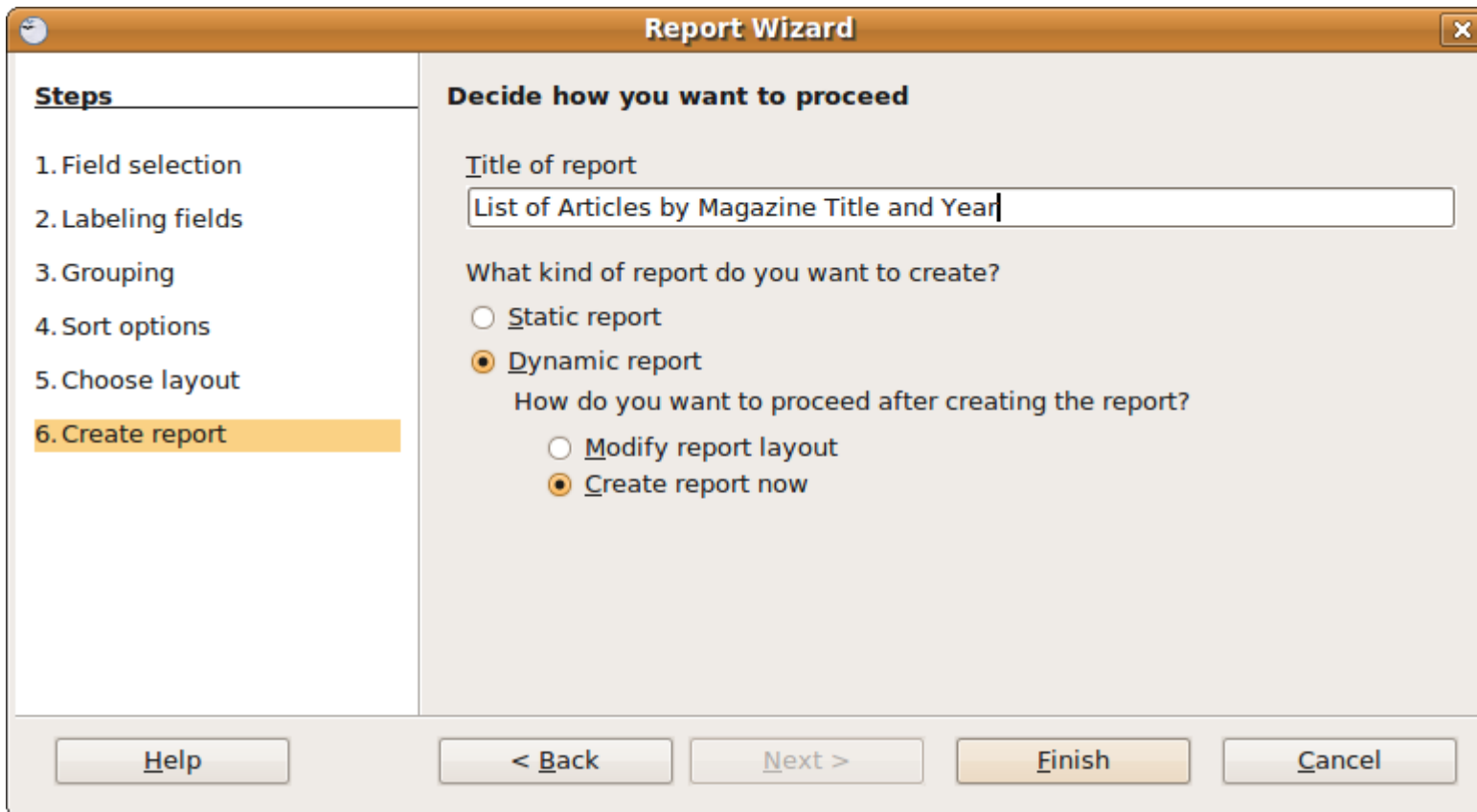
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You will probably want to try a few different options here – for this report we are using a compact layout.



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Specify a report title and report type – most times you will want a dynamic report which works on data current at the time of the report.



The image shows a 'Report Wizard' dialog box with a title bar and a close button. On the left, a 'Steps' list contains six items, with '6. Create report' highlighted in orange. The main area is titled 'Decide how you want to proceed' and contains a text field for the report title, a radio button selection for report type, and another radio button selection for post-creation action. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Report Wizard

Steps

1. Field selection
2. Labeling fields
3. Grouping
4. Sort options
5. Choose layout
- 6. Create report**

Decide how you want to proceed

Title of report
List of Articles by Magazine Title and Year

What kind of report do you want to create?

Static report

Dynamic report

How do you want to proceed after creating the report?

Modify report layout

Create report now

Help < Back Next > Finish Cancel

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The report will now be generated. If it is not what you want, run the wizard again with some different options.

You can also save a copy of the report, and, as this creates a standard OpenOffice Writer document, you can change the copy to suit your preferences.

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This is the result of the example report, shown as a OO Writer document.

The screenshot shows the OpenOffice.org Writer interface with a document titled 'art-list.odt'. The report content is as follows:

Title: [Empty field]

Author: [Empty field]

Date: 10/29/09

Magazine Name		Linux Format			
Issue Year		2009			
Issue Month	Article Title	Keywords	Article Authours	Start Page	
Feb	Scribus: Create a template	scribus template newsletter	Andy Channelle	86	
Feb	F-Spot: Quick photo fixes	f-spot photos fix	LXF staff	88	
Feb	Gimp: A Bottle of wine	gimp 3d wine label	Michael J Hammel	90	
Jan	Pidgin: Instant Messaging	Pidgin messaging	Andy Channelle	82	
Jan	Scribus: Mark our cards	scribus greeting cards	Andy Channelle	84	
Jan	Gimp: Speedy colour fixes	gimp colour	Michael J Hammel	86	
Jan	Seq24: Play with MIDI sounds	MIDI sequencer	Daniel James	90	
Jan	Apache: Set up a web server	apache web server configuration	Neil Bothwick	94	
Issue Year		2008			
Issue Month	Article Title	Keywords	Article Authours	Start Page	
Jul	DesktopParadise - Xfce	Xfce Compiz	Graham Morrison	41	
Jul	KDE: Sort Your Desktop out	KDE Desktop configuration	Andy Channelle	80	
Jul	Konqueror: Get Tweaking Now!	KDE desktop konqueror	Andy Channelle	82	
Jul	Eee PC: Install extra apps	applications Eee	Mike Saunders	84	
Jul	Gimp: Add Shade and Texture	gimp shade texture	Michael J Hammel	88	

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Data Entry Improvements

Create a new table called L_Magazine_Names. This table will have only one field – magazine_name – which will be a primary key. Right-click on the leftmost column of the design dialog to set the primary key. Use the “spreadsheet view” of this new table to directly enter a few magazine names.

Edit the data entry form design to replace the Magazine name text box with a list box. Do this by selecting the Magazine Name data entry field, right click and choose 'Replace with' followed by 'List Box'. Right click on the Magazine Name data entry field, and choose 'Control' to get a properties dialog.

Under the 'General' tab, select 'Dropdown' and change to 'Yes'. Next select the 'Data' tab, and in the 'Type of list contents' select 'Sql'. In 'List Content' type in the SQL command

```
select * from L_Magazine_Names
```

(see next screenshot)

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Below is a screenshot of the Data Properties dialogs for the magazine_name list box.

The screenshot shows the 'Properties: List Box' dialog with the 'General' tab selected. The 'Name' property is set to 'txtmagazine_name'. The 'Label Field' is '<Magazine Name>'. Other properties include 'Enabled' (Yes), 'Read-only' (No), 'Print' (Yes), 'Tabstop' (Yes), 'Tab order' (0), 'List entries' (empty), 'Font' (empty), 'Alignment' (Left), 'Background color' (0x00DDDDDD), 'Border' (3D look), 'Border color' (Default), 'Dropdown' (Yes), 'Line count' (5), 'Multiselection' (No), and 'Default selection' (empty).

Name.....	txtmagazine_name
Label Field.....	<Magazine Name>
Enabled.....	Yes
Read-only.....	No
Print.....	Yes
Tabstop.....	Yes
Tab order.....	0
List entries.....	
Font.....	
Alignment.....	Left
Background color.....	0x00DDDDDD
Border.....	3D look
Border color.....	Default
Dropdown.....	Yes
Line count.....	5
Multiselection.....	No
Default selection.....	

The screenshot shows the 'Properties: List Box' dialog with the 'Data' tab selected. The 'Data field' is 'magazine_name'. The 'Type of list contents' is 'Sql'. The 'List content' is empty. The 'Bound field' contains the SQL query: 'select * from L_Magazine_Names'.

Data field.....	magazine_name
Type of list contents.....	Sql
List content.....	
Bound field.....	select * from L_Magazine_Names

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The result of all this is a drop down list box where you can select the magazine name from a predefined list.

The screenshot displays the OpenOffice Base Form Design interface for a database named 'magarticles.odb'. The window title is 'magarticles.odb : Articles Data Entry (read-only) - OpenOffice.org Base: Form Design'. The form is titled 'Magazine Article Database' and 'Data Entry Form'. It features several input fields:

- Magazine Name:** A dropdown menu is open, showing a list of magazine titles: 'Linux Format', 'Australian Personal Computer', 'Linux Magazine', and 'PC User'. 'Linux Magazine' is currently selected and highlighted.
- Article Title:** An empty text input field.
- Issue Date:** Three separate input fields for 'Month', 'Year', and 'Start Page'.
- keywords:** A text input field containing the text 'gimp shade texture'.
- Article Authours:** A text input field containing the text 'Michael J Hammel'.

The interface includes a menu bar (File, Edit, View, Insert, Format, Table, Tools, Window, Help), a toolbar with various icons, and a status bar at the bottom showing 'Page 1 / 1', 'Default', and 'STD'. The record navigation bar indicates 'Record 5 of 11 *'.