

# MS Access Forms and Banner Reports

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Course ID 837



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## Introduction

- **This presentation is designed to illustrate how Microsoft Access Forms can serve as a user-friendly front end to using Access to report Banner data as well as using Visual Basic for Applications (VBA) to create output directly from a form.**
- **Attendees will learn how to:**
  - **Create a combo box to accept user input**
  - **Create a command button to run a report from a form**
  - **Use VBA code to create a delimited file**

# Topic #1

*Using an Access Form to accept user input.*



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## Using a combo box for input

- A combo box enables you to provide the user with choices in a drop-down list
- Helps to edit user input
- Provides a more user-friendly and professional front end to your Access reports

# Using a combo box for input

## Desired Output



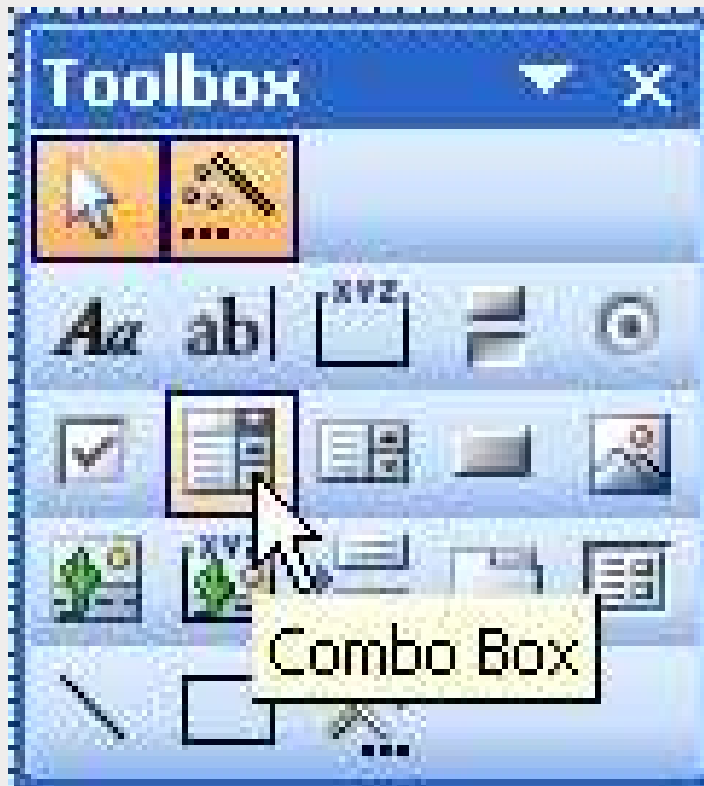
### Candidates for Graduation with Holds For Spring 2007 (200720)

Name	ID	Degree/Cert	Hold Data
Cisneros, Ryan Frank	@00141999	CER BPO	FA-Return of Title IV Funds AR-FALL '06
DeFriend, Juan Carlos	@00228366	CER COS	TE-Needs THEA Math
Gonzales, Anna M	@00129524	AA GEN	CU-Prarie View A&M Fall 06 grade
Guerrero, Miguel Edwa	@00219071	AAS DRAF	CU-Houston Community College
Limas, Erica Lynne	@00020970	AA GEN	CU-Texas State University
Melnar, Marshall Wayn	@00089815	AAS AG T1	AR-FALL'06 AR-SPRING 06
Miculka, Brian Christop	@00137909	AA GEN	CU-TAMU Transcript Fall 2006
O'Canas, Ashley Marie	@00130302	AAS LEGA	LF-1 bk not ref'd, 034285

Students on Report 8

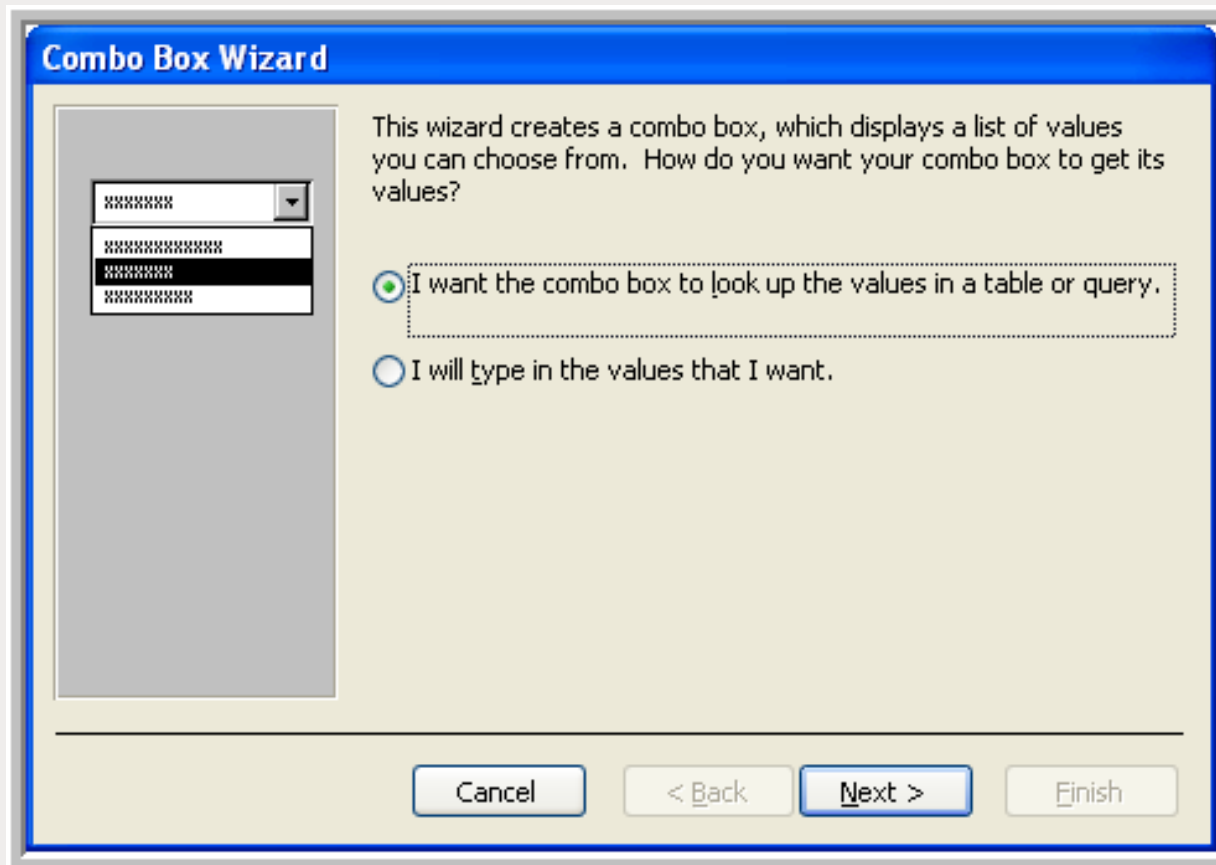
## Using a combo box for input

Create a new form, insert a logo and a title, and from the toolbox, select the combo box tool.



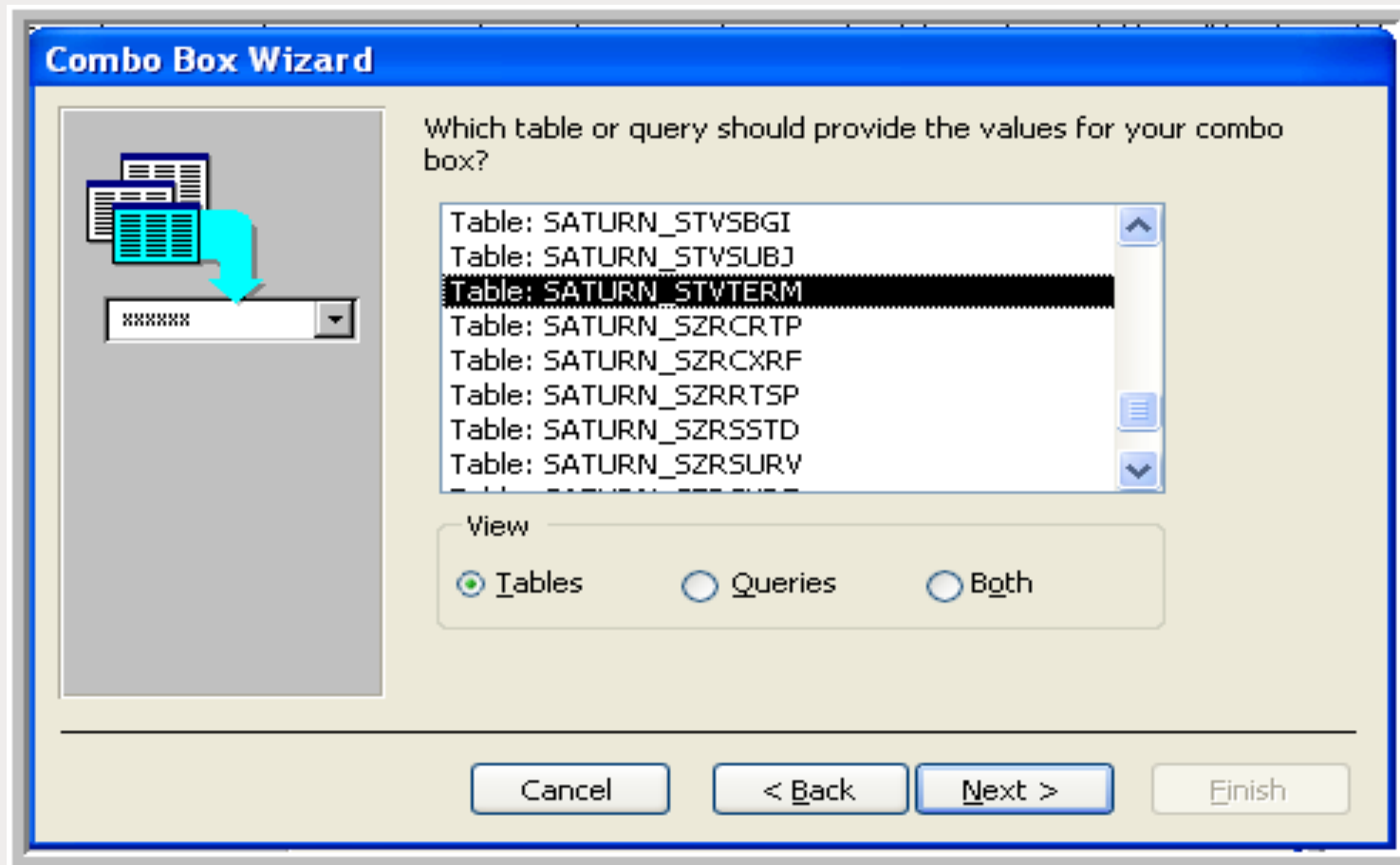
## Using a combo box for input

On the form canvas, click and drag to create the combo box. When you release the mouse button, the combo box wizard will start:



## Using a combo box for input

The next step of the combo box wizard allows us to select a table or query to provide the values.



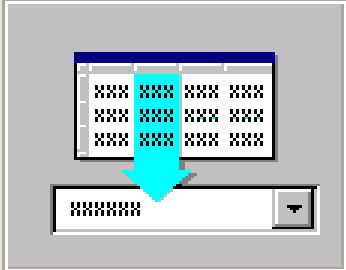


## Using a combo box for input

We want the term code and term description. Move them to the Selected Fields box with the right arrow. Click Next.

**Combo Box Wizard**

Which fields contain the values you want included in your combo box? The fields you select become columns in your combo box.



Available Fields:

- STVTERM\_START\_DATE
- STVTERM\_END\_DATE
- STVTERM\_FA\_PROC\_YR
- STVTERM\_ACTIVITY\_DATE
- STVTERM\_FA\_TERM
- STVTERM\_FA\_PERIOD
- STVTERM\_FA\_END\_PERIOD
- STVTERM\_ACYR\_CODE

Selected Fields:

- STVTERM\_CODE
- STVTERM\_DESC

Buttons: Cancel, < Back, Next >, Finish

## Using a combo box for input

This dialog box allows us to sort the contents of the combo box. We'll sort by term code descending so that the most recent terms will appear at the top of the list.

CLI

**Combo Box Wizard**

What sort order do you want for your list?

You can sort records by up to four fields, in either ascending or descending order.

1	STVTERM_CODE	Descending
2		Ascending
3		Ascending
4		Ascending

Cancel   < Back   Next >   Finish

# Using a combo box for input

## Set column widths and key column

**Combo Box Wizard**

How wide would you like the columns in your combo box?

To adjust the width of a column, drag its right edge to the width you want, or double-click the right edge of the column heading to get the best fit.

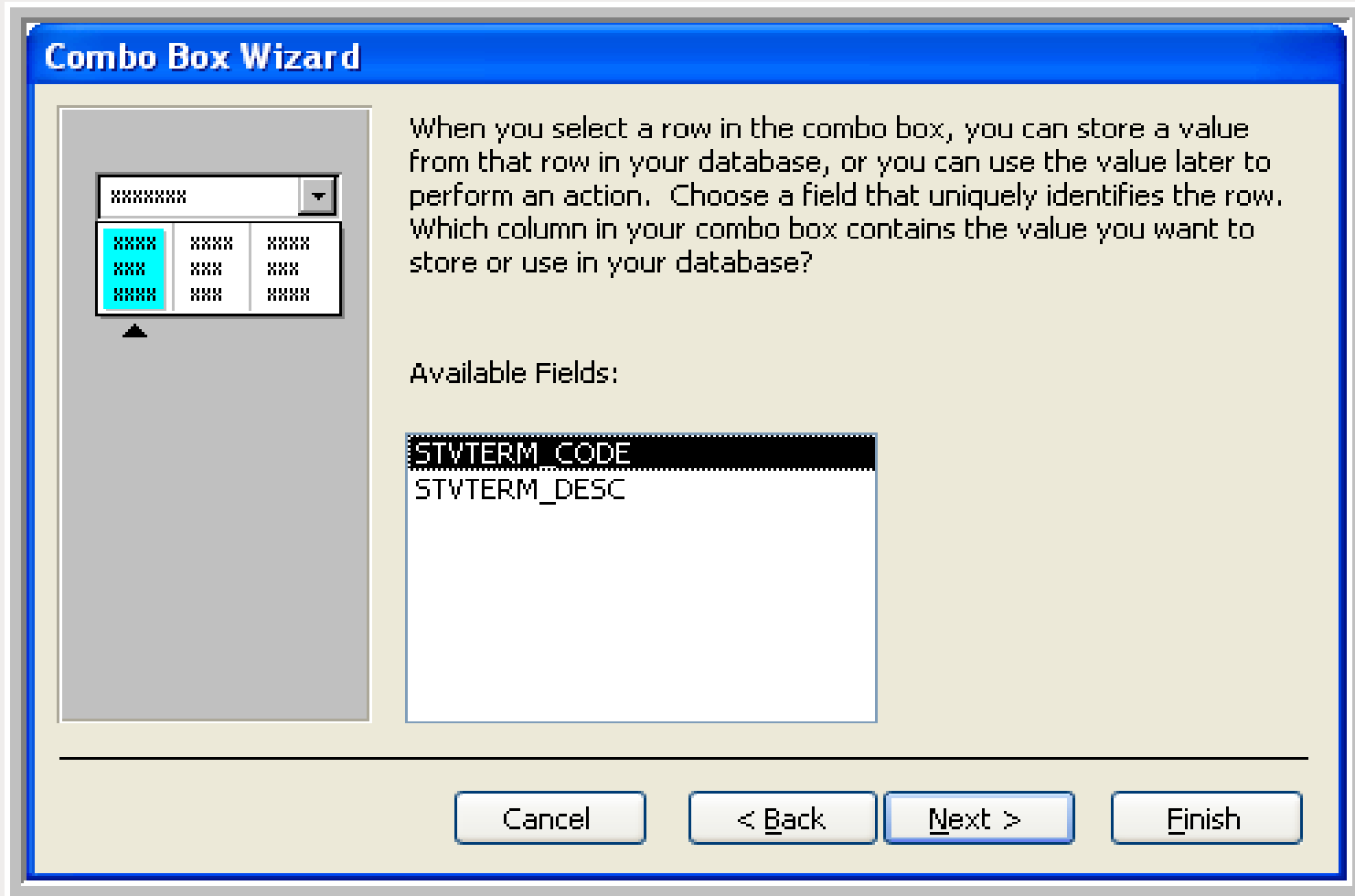
Hide key column (recommended)

	STVTERM_CODE	STVTERM_DESC	
▶	999999	The End of Time	↑ ↓
	209919	Reg Appointment	
	209918	Testing Appointment	
	200840	Summer-2 2008	
	200830	Summer-1 2008	
	200825	May 2008 Mini-term	
	200820	Spring 2008	

Cancel    < Back    Next >    Finish

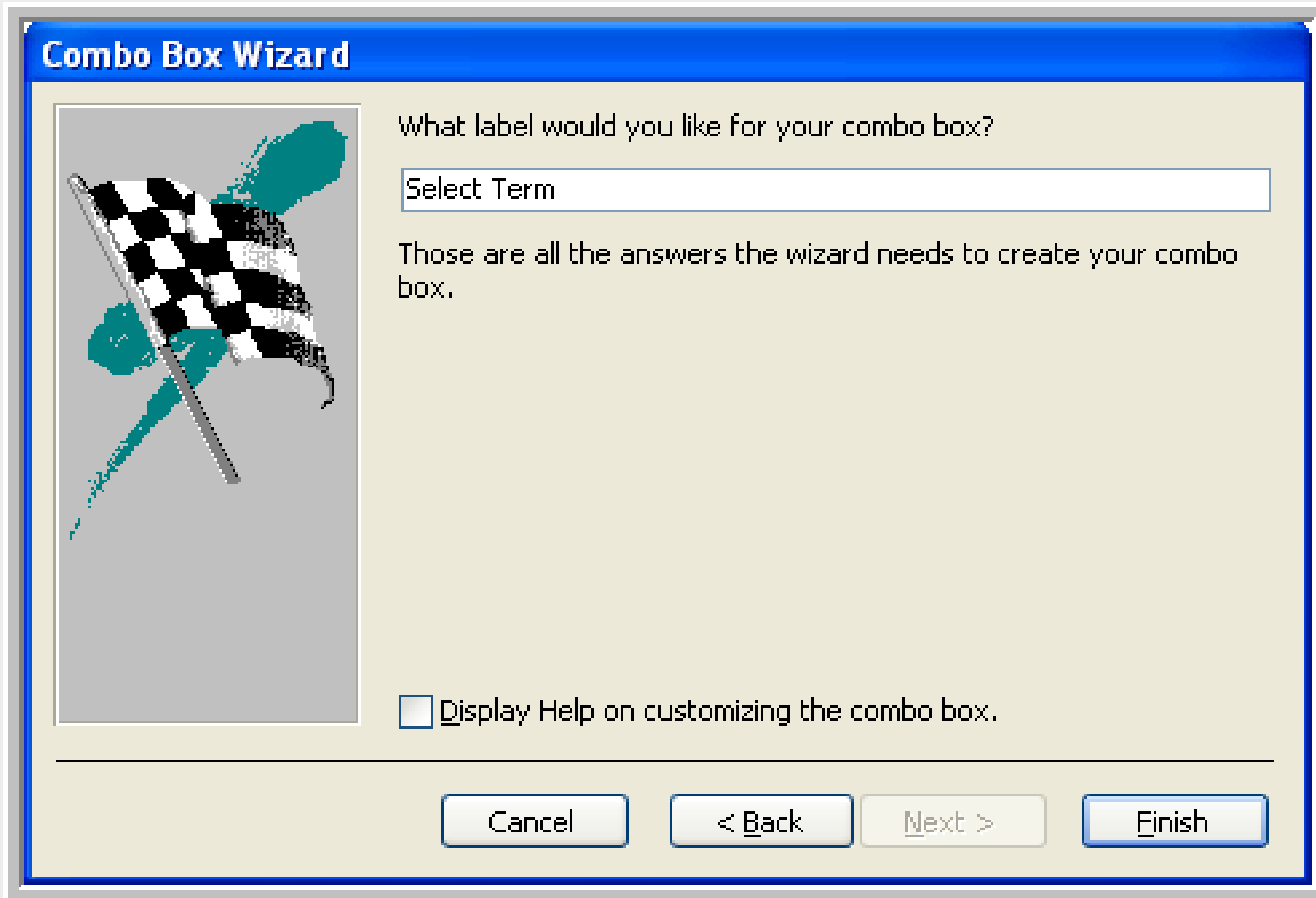
# Using a combo box for input

## Tell Access which value to save



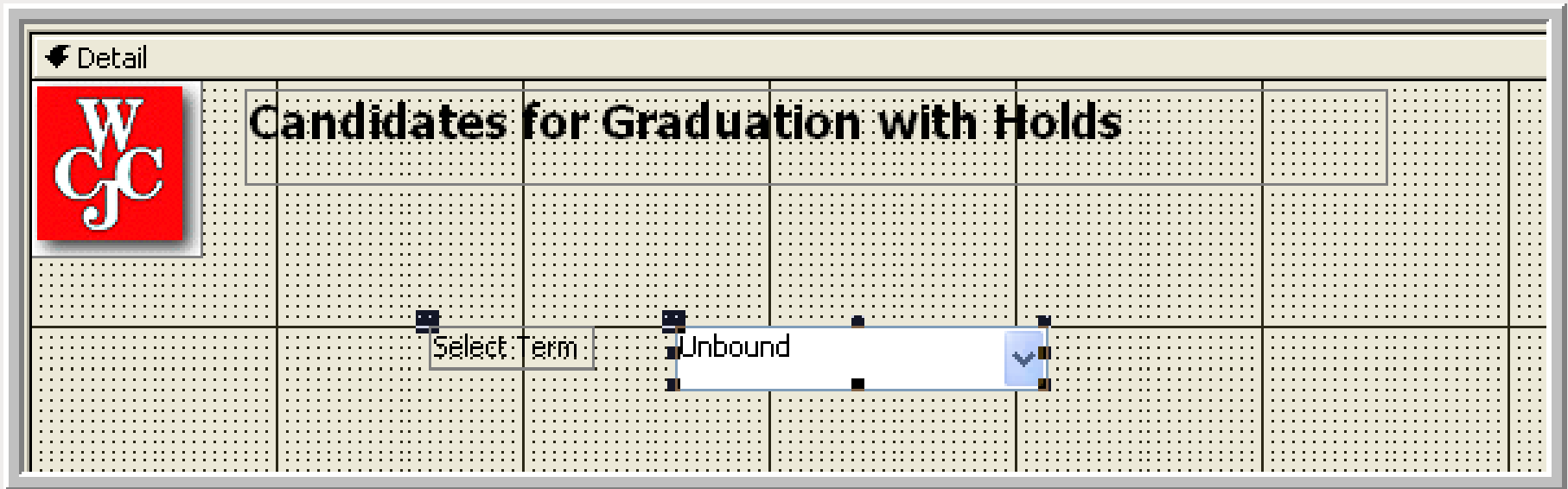
# Using a combo box for input

## Provide a prompt



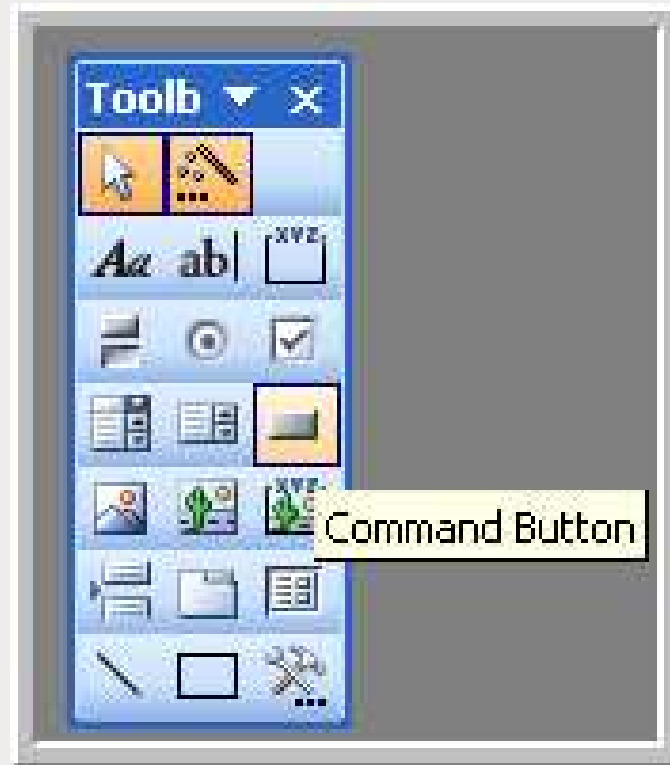
# Using a combo box for input

Our form now looks like this:



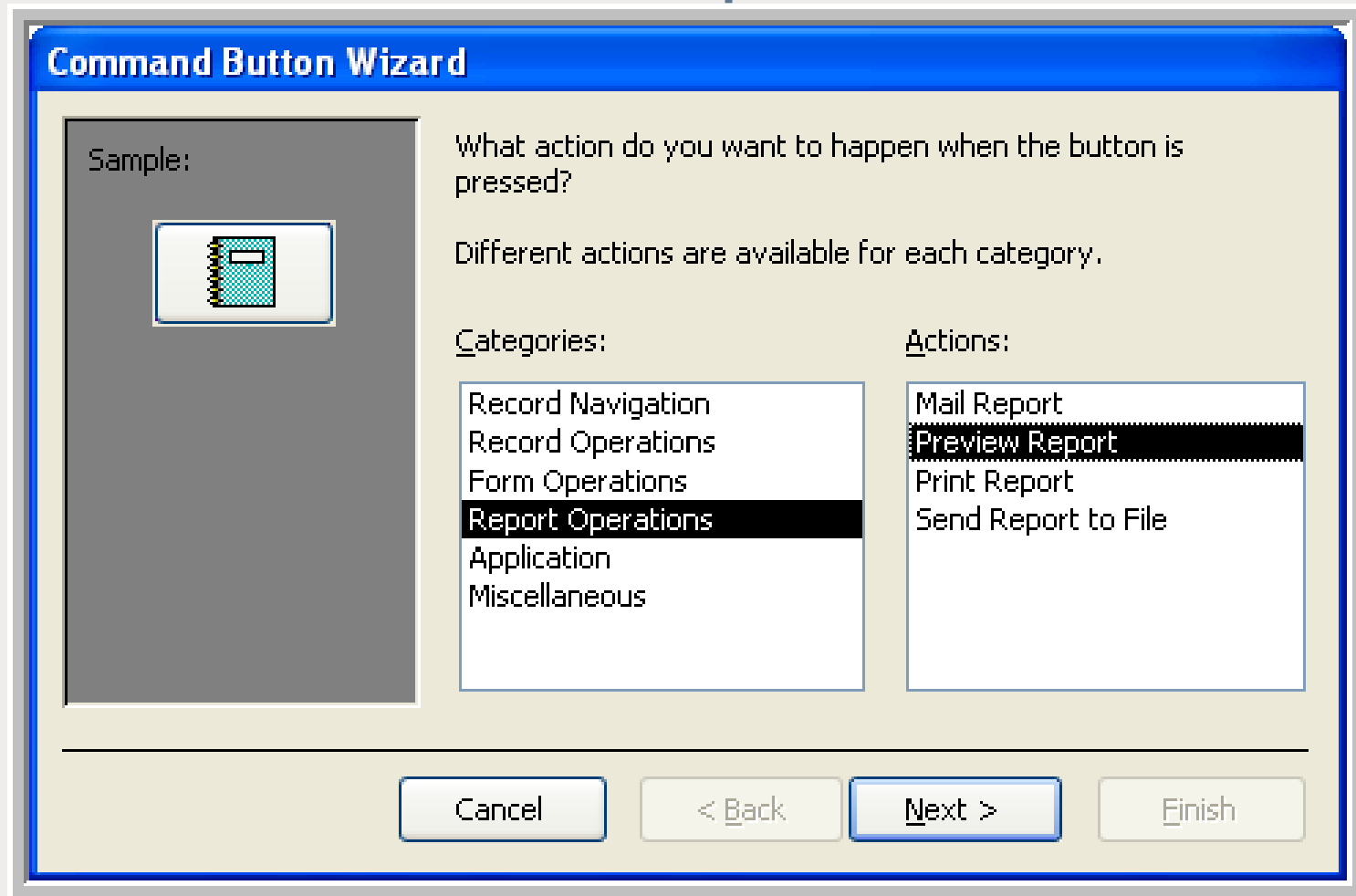
# Using a combo box for input

Add a command button to preview the report



# Using a combo box for input

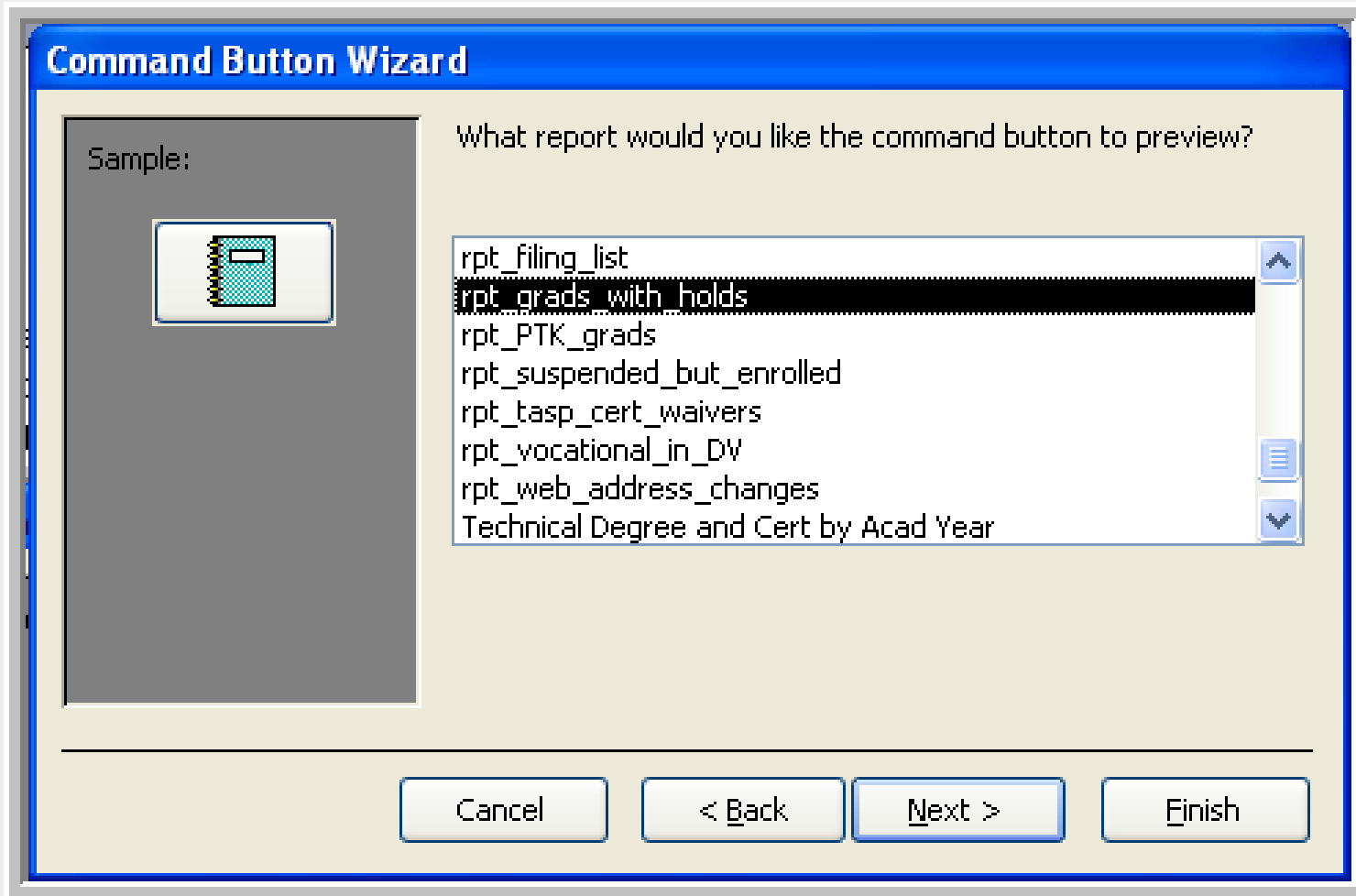
## The Command Button Wizard opens





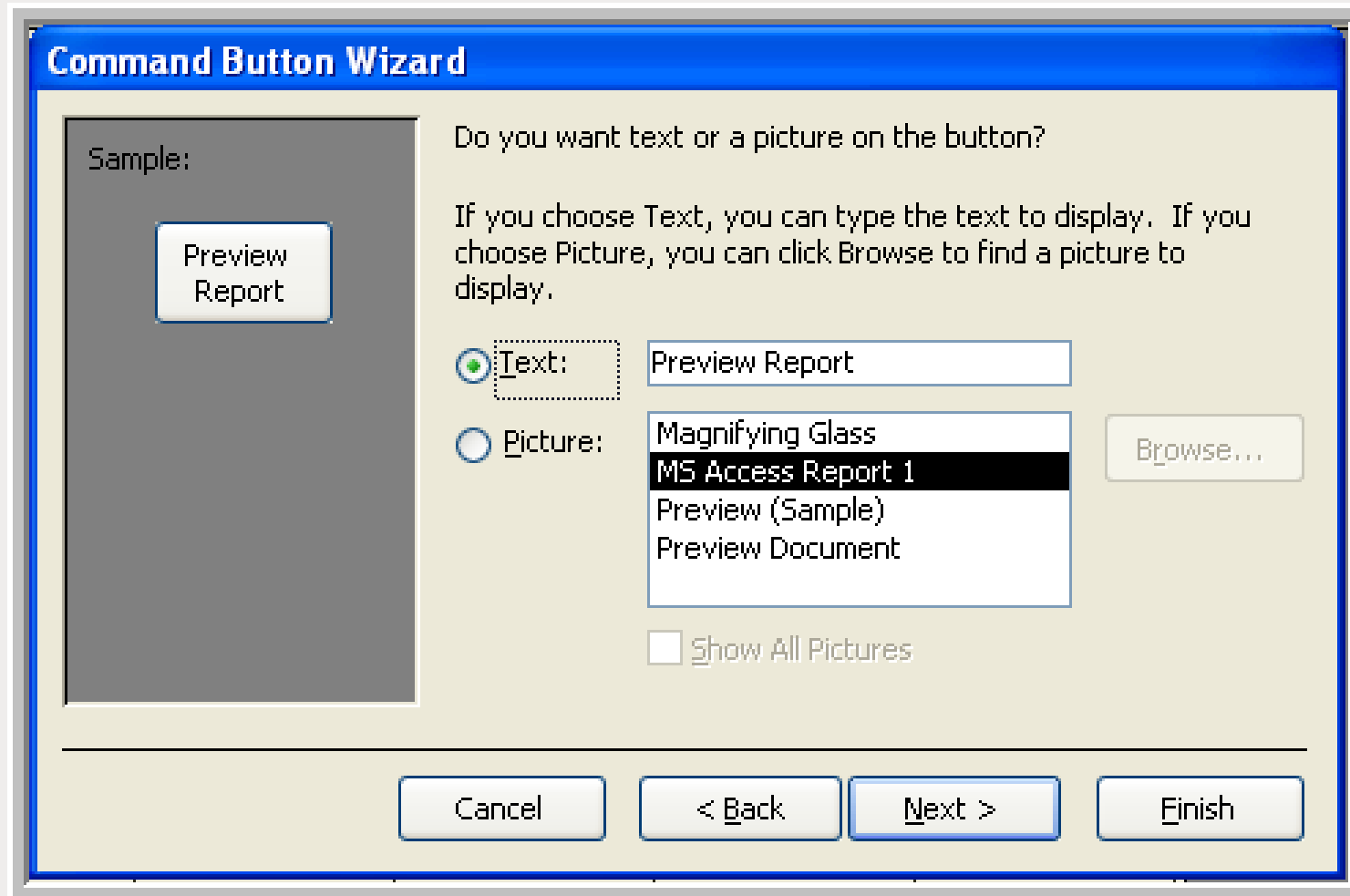
# Using a combo box for input

## Select the report to preview



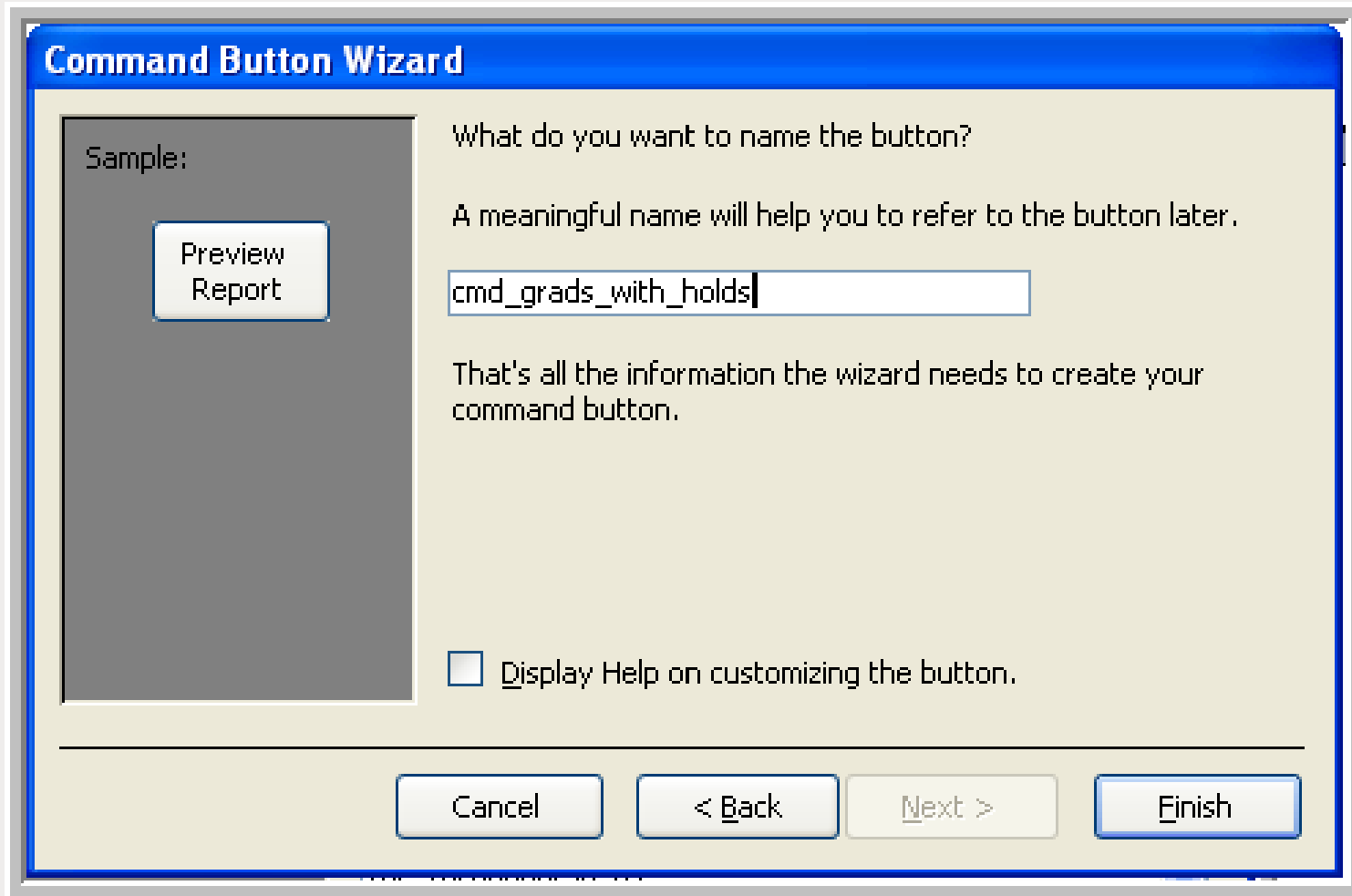
# Using a combo box for input

## Design the appearance of the command button



# Using a combo box for input

## Name the command button



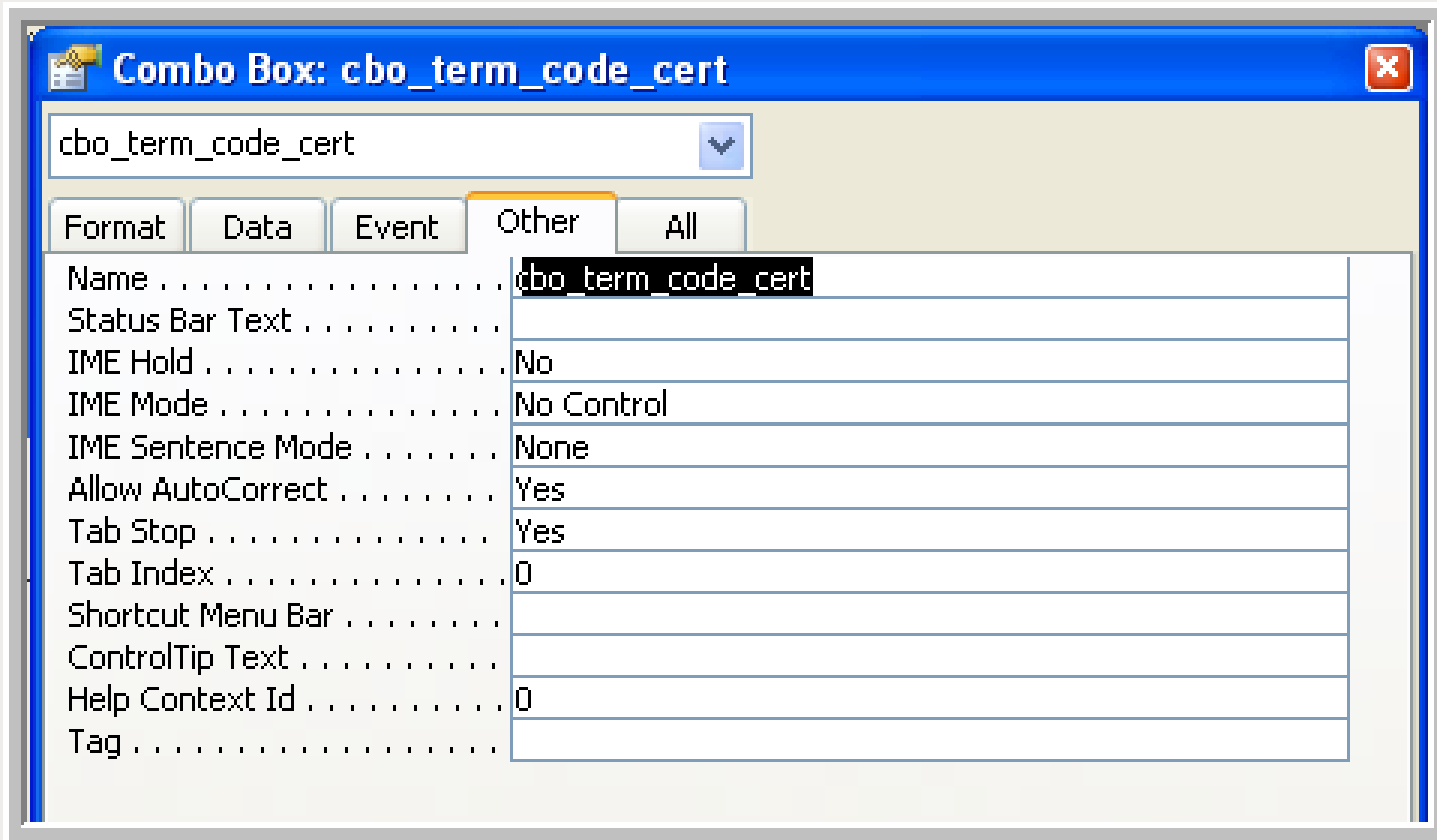
# Using a combo box for input

Now our form looks like this

The screenshot shows a report form titled "Candidates for Graduation with Holds" with a "WGC" logo. The form includes a "Select Term:" label and a dropdown menu currently displaying "Unbound". A "Preview Report" button is also visible. The form is set against a dotted grid background.

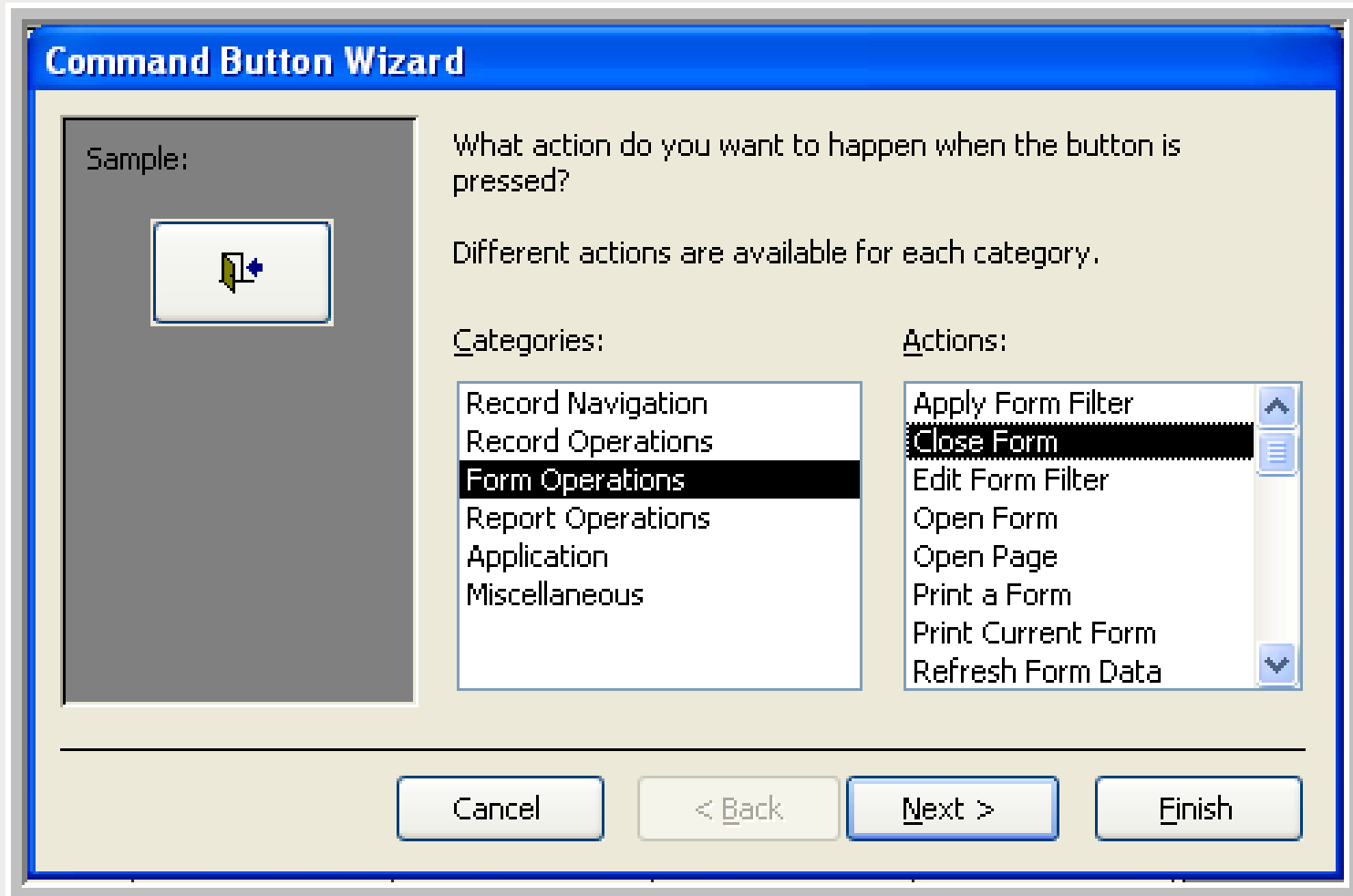
# Using a combo box for input

## Name the combo box



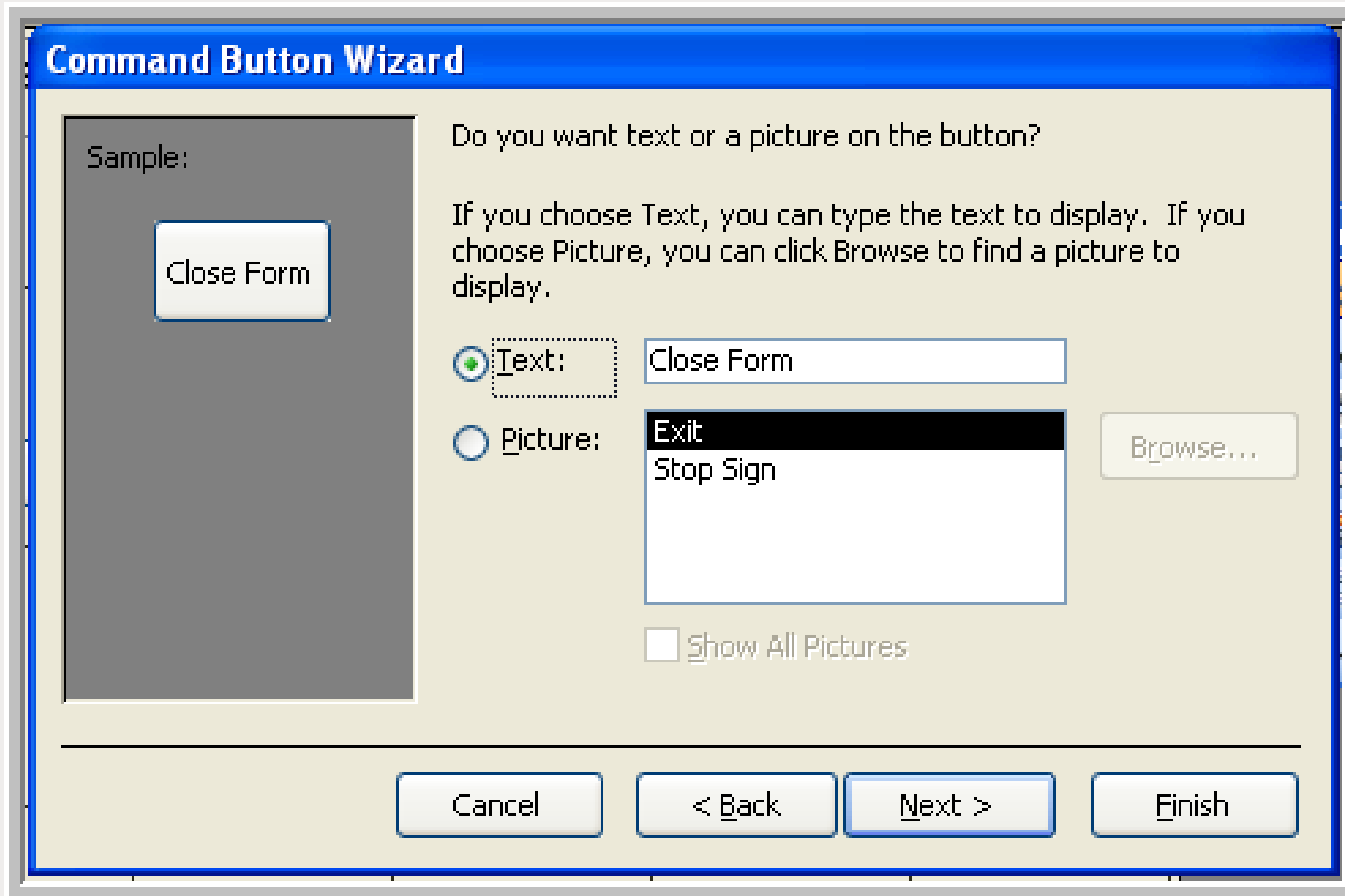
# Using a combo box for input

- Create an Exit button



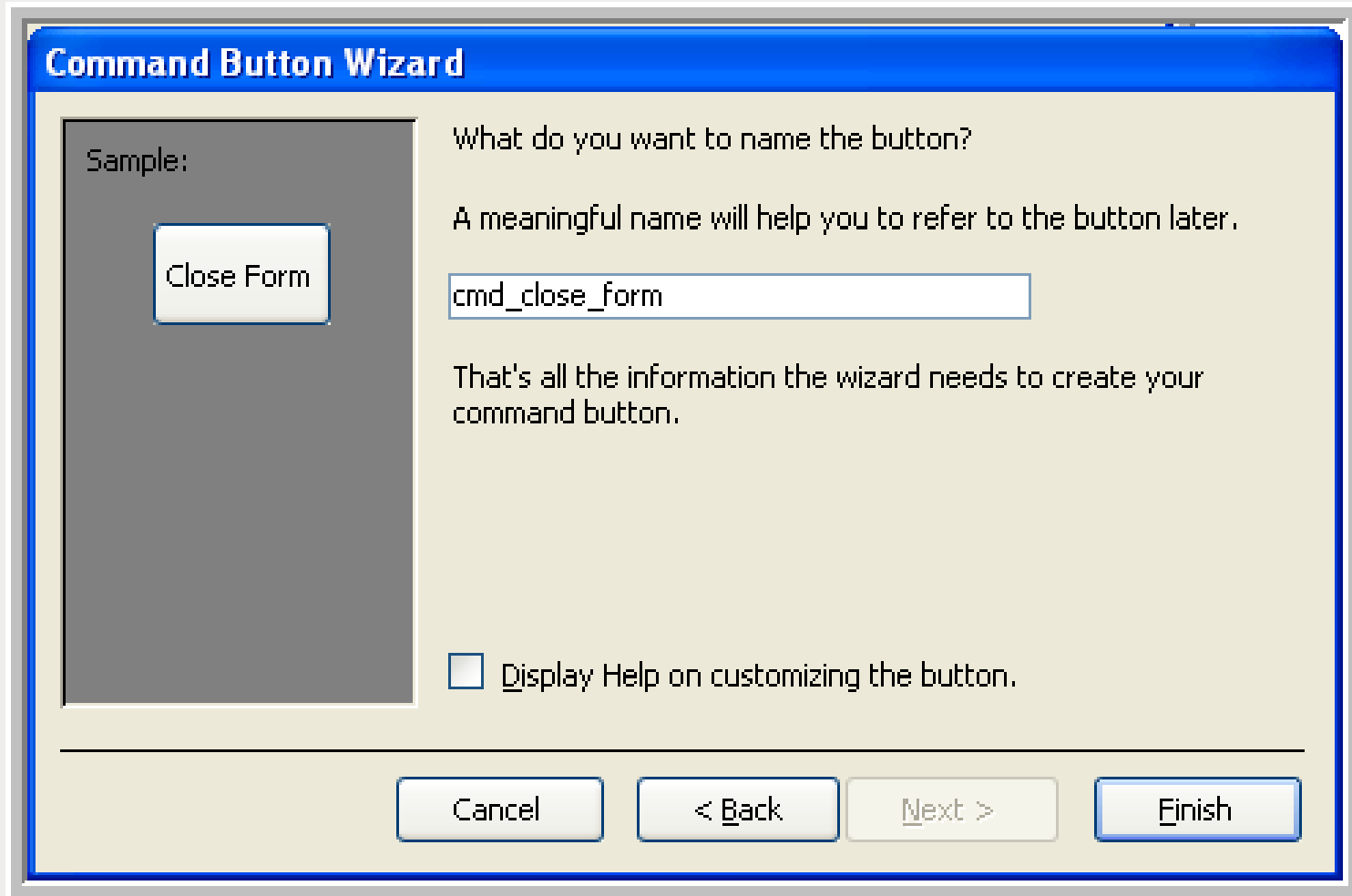
# Using a combo box for input

- Label the button



# Using a combo box for input

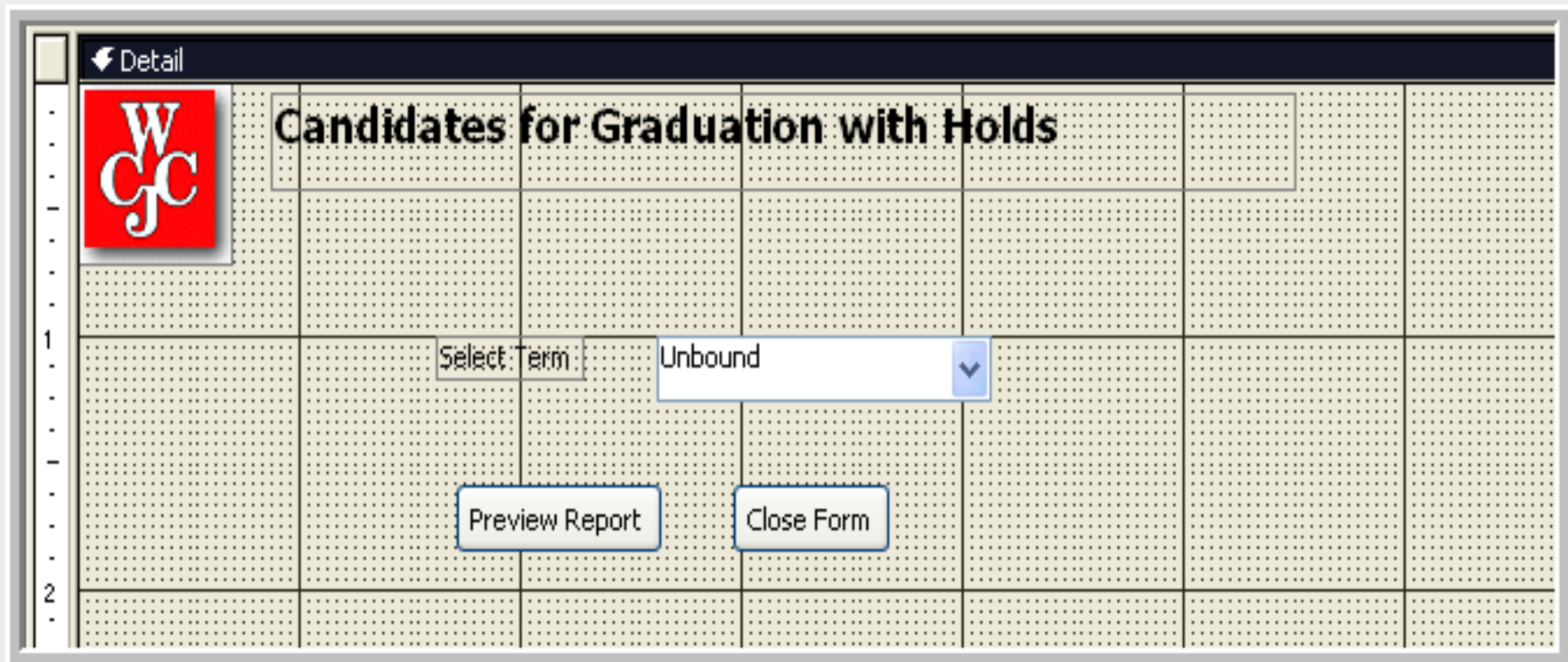
Provide a name and click Finish





## Using a combo box for input

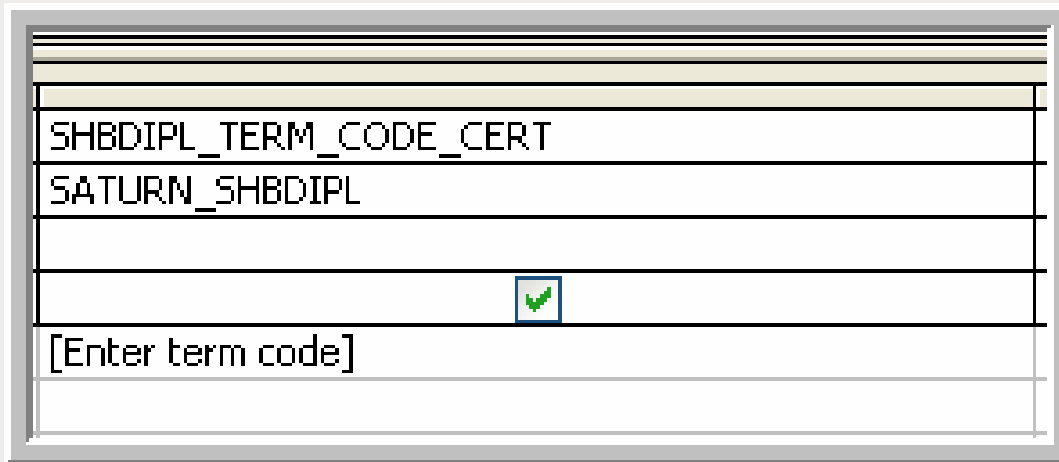
Our form is nearing completion. Choose File, Save and name the form `frm_grads_with_holds`.



The screenshot shows a Microsoft Access form titled "Candidates for Graduation with Holds". The form has a red logo with the letters "W" and "CJC" in white. Below the logo, there is a "Select Term:" label followed by a dropdown menu currently displaying "Unbound". At the bottom of the form, there are two buttons: "Preview Report" and "Close Form". The form is set to "Detail" view, as indicated by the "Detail" label in the top left corner. The form is displayed on a grid background.

## Using a combo box for input

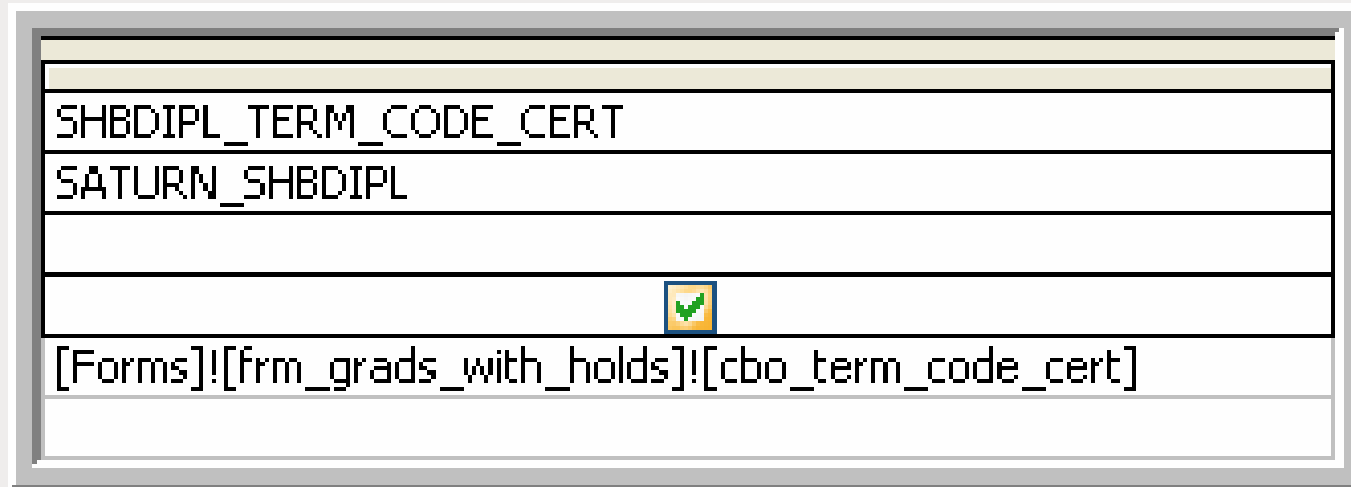
Modify the query to expect the term code to be passed from the form. In query grid mode, our column now contains a simple prompt.




SHBDIPL_TERM_CODE_CERT
SATURN_SHBDIPL
[Enter term code]

## Using a combo box for input

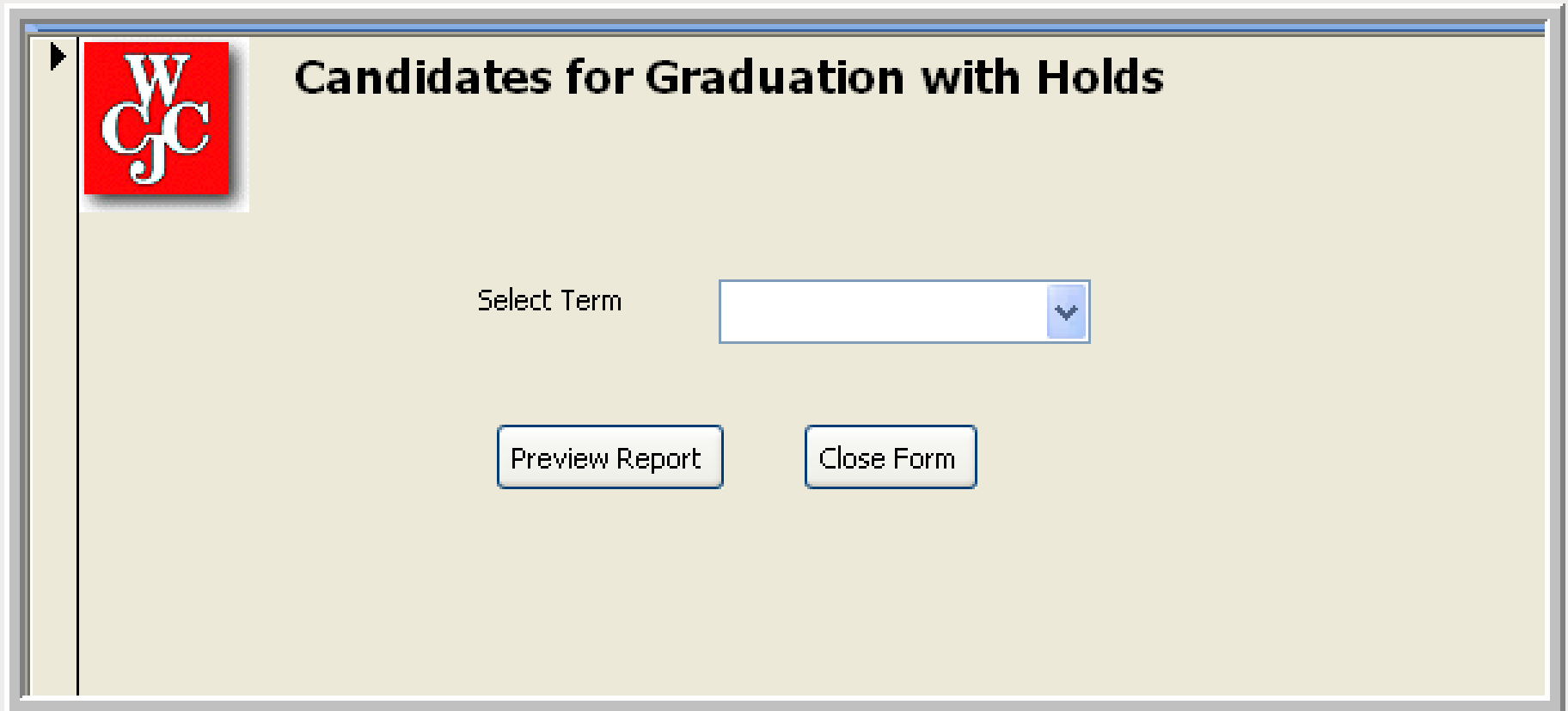
Drum roll, please! This is what ties it together.




SHBDIPL\_TERM\_CODE\_CERT  
SATURN\_SHBDIPL  
  
[Forms]![frm\_grads\_with\_holds]![cbo\_term\_code\_cert]

# Using a combo box for input

Run our form

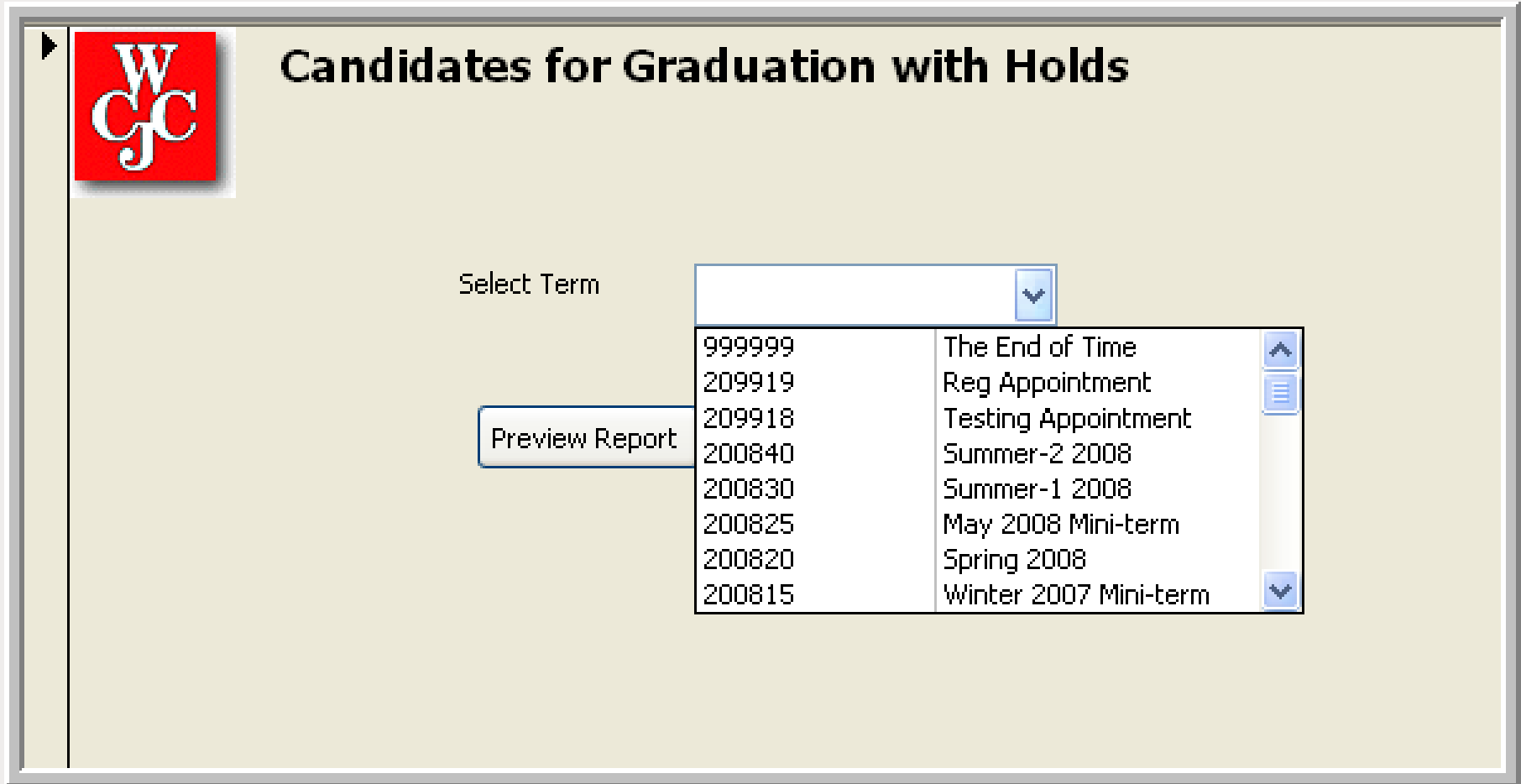


 **Candidates for Graduation with Holds**

Select Term

# Using a combo box for input

- Drop down terms!

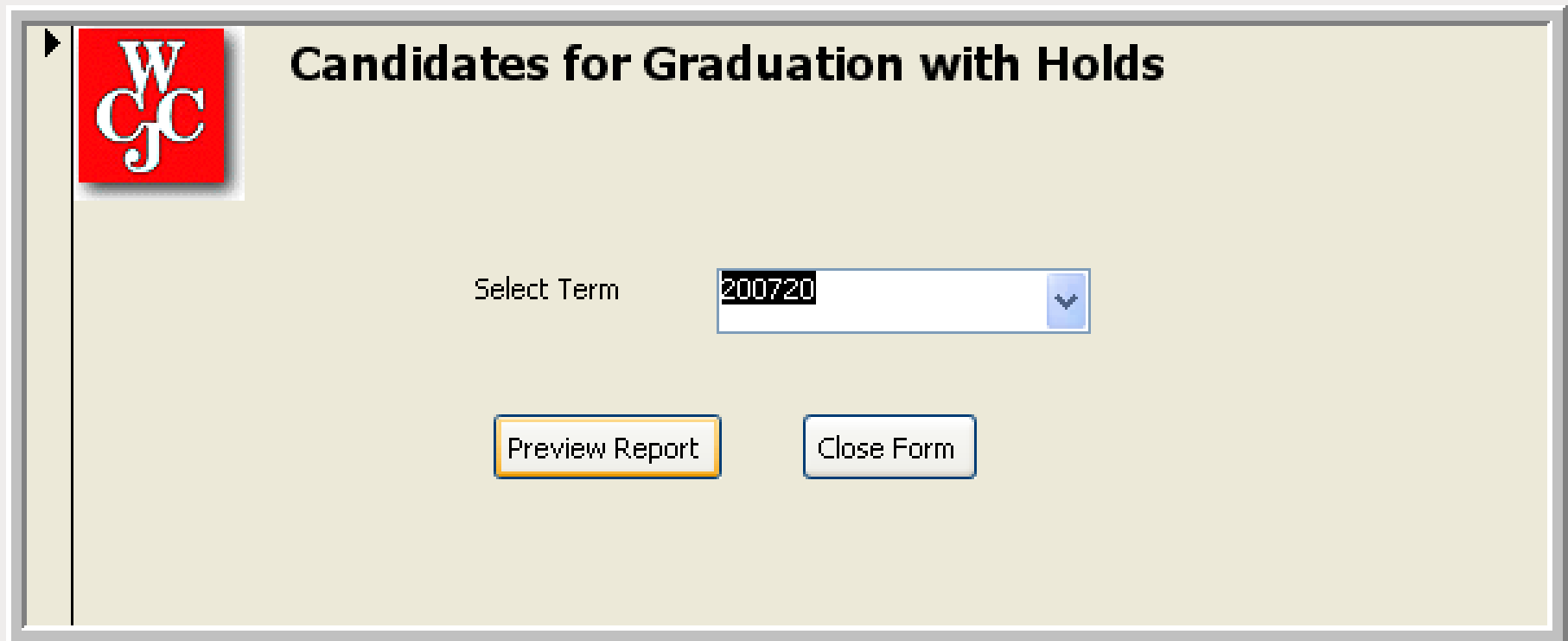


The screenshot shows a web application interface with a red logo on the left containing the letters 'W' and 'GC'. The main title is 'Candidates for Graduation with Holds'. Below the title, there is a 'Select Term' label and a dropdown menu. The dropdown menu is open, showing a list of terms with their corresponding IDs. A 'Preview Report' button is positioned to the left of the dropdown menu.

Term ID	Term Name
999999	The End of Time
209919	Reg Appointment
209918	Testing Appointment
200840	Summer-2 2008
200830	Summer-1 2008
200825	May 2008 Mini-term
200820	Spring 2008
200815	Winter 2007 Mini-term

## Using a combo box for input

- Select a term and click the Preview Button



The screenshot shows a web interface for 'Candidates for Graduation with Holds'. It features a red logo with 'WGC' in white. Below the logo, the text 'Candidates for Graduation with Holds' is displayed. A 'Select Term' label is positioned to the left of a dropdown menu containing the value '200720'. Below the dropdown are two buttons: 'Preview Report' and 'Close Form'.

## Using a combo box for input

- Viola! Our report executes to the screen.



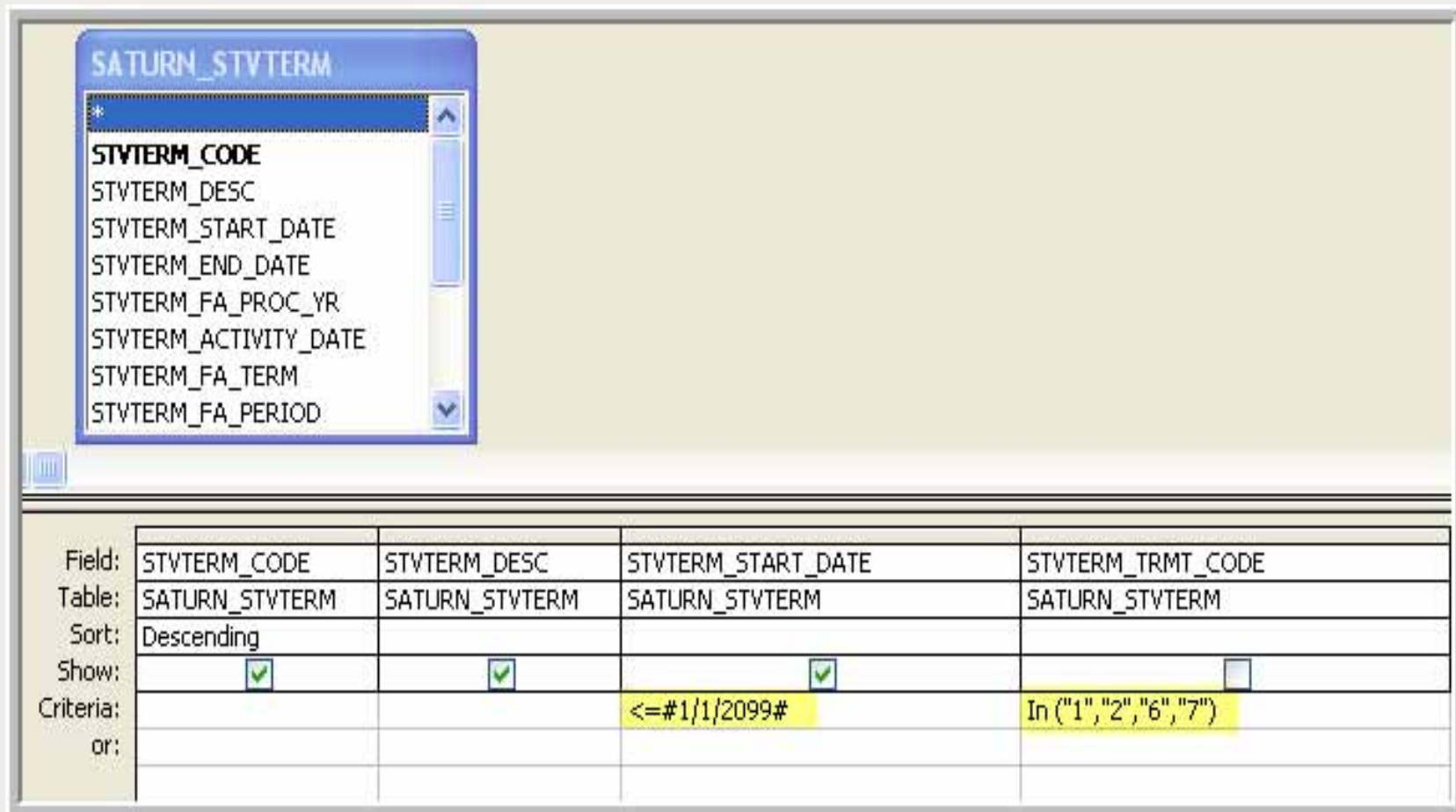
### Candidates for Graduation with Holds For Spring 2007 (200720)

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Gonzales, Anna M	@00129524	AA	GEN	CU-Prarie View A&M Fall 06 grade
Guerrero, Miguel Edwa	@00219071	AAS	DRAF	CU-Houston Community College
Limas, Erica Lynne	@00020970	AA	GEN	CU-Texas State University
Melnar, Marshall Wayn	@00089815	AAS	AG T1	AR-FALL'06 AR-SPRING 06
Micuka, Brian Christop	@00137909	AA	GEN	CU-TAMU Transcript Fall 2006
O'Canas, Ashley Marie	@00130302	AAS	LEGA	LF-1 bk not ref'd, 034285

Students on Report 8

## Using a combo box for input

Bonus material at no extra charge! We can narrow the selection group in a combo box.



The screenshot shows a Microsoft Access query design grid for a query named 'SATURN\_STVTERM'. The grid has four columns representing fields from the 'SATURN\_STVTERM' table. The 'Show' row has checkboxes for 'STVTERM\_CODE', 'STVTERM\_DESC', and 'STVTERM\_START\_DATE' checked, and 'STVTERM\_TRMT\_CODE' unchecked. The 'Criteria' row has the criteria '<=#1/1/2099#' for 'STVTERM\_START\_DATE' and 'In ("1","2","6","7")' for 'STVTERM\_TRMT\_CODE'. Above the grid, a dropdown menu is open, listing the following fields: 'STVTERM\_CODE', 'STVTERM\_DESC', 'STVTERM\_START\_DATE', 'STVTERM\_END\_DATE', 'STVTERM\_FA\_PROC\_YR', 'STVTERM\_ACTIVITY\_DATE', 'STVTERM\_FA\_TERM', and 'STVTERM\_FA\_PERIOD'.

Field:	STVTERM_CODE	STVTERM_DESC	STVTERM_START_DATE	STVTERM_TRMT_CODE
Table:	SATURN_STVTERM	SATURN_STVTERM	SATURN_STVTERM	SATURN_STVTERM
Sort:	Descending			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Criteria:			<=#1/1/2099#	In ("1","2","6","7")
or:				



## Topic #2

### *Using Visual Basic for Applications (VBA)*



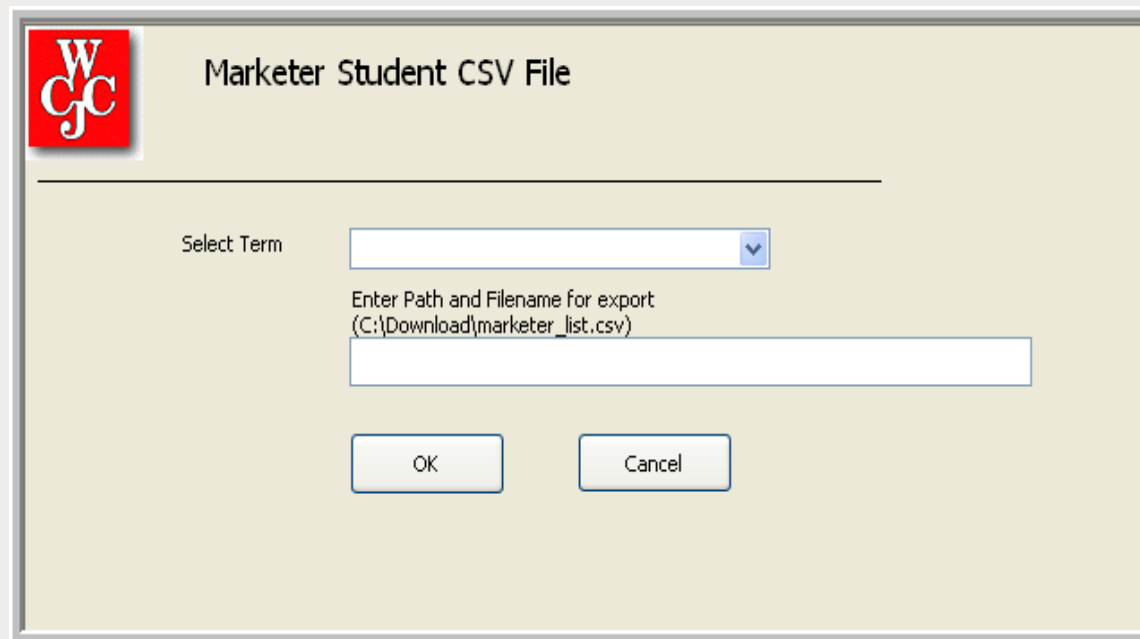
## Using VBA

- One of the things I use VBA for is to control the format of extracted data.
- With Access, you can create a query and then export the query results to a CSV file, but only if the query does not have a prompt. If the query has a prompt, you get the very frustrating error:



## Using VBA

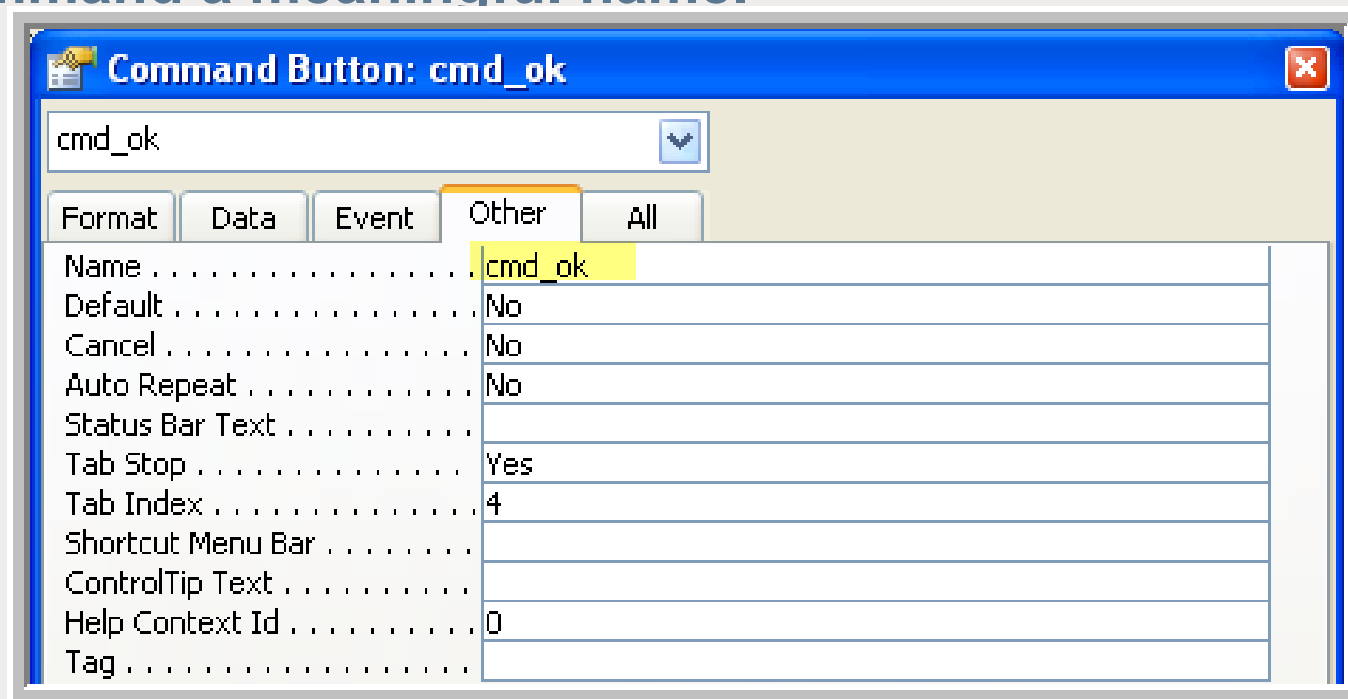
- If you want complete control over the format of the output, you can use a form with VBA code to extract the data.
- Let's take a look at our goal. We want a form to extract basic directory information into a CSV file.



The screenshot shows a VBA form titled "Marketer Student CSV File" with a red logo in the top left corner. The form contains a "Select Term" dropdown menu, a text input field for the export path and filename (with the example path "C:\Download\marketer\_list.csv" shown), and "OK" and "Cancel" buttons at the bottom.

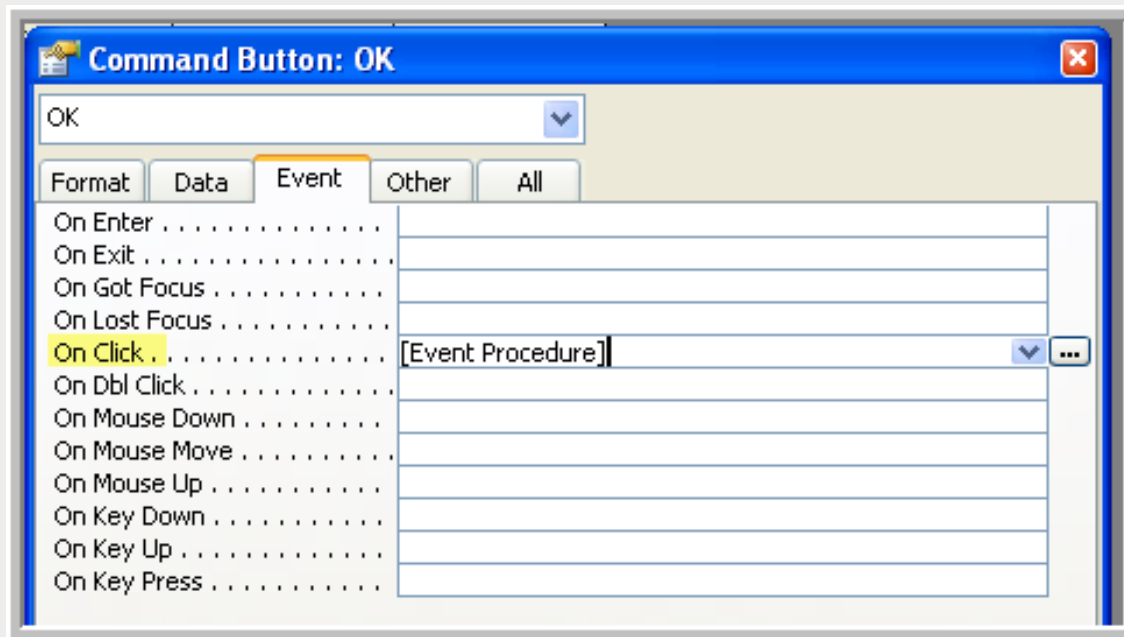
## Using VBA

- The VBA code is behind the OK command button. After drawing the command button, the command button wizard will open. Cancel the wizard and right-click the button, choose Properties, then the Other tab to give the command a meaningful name.



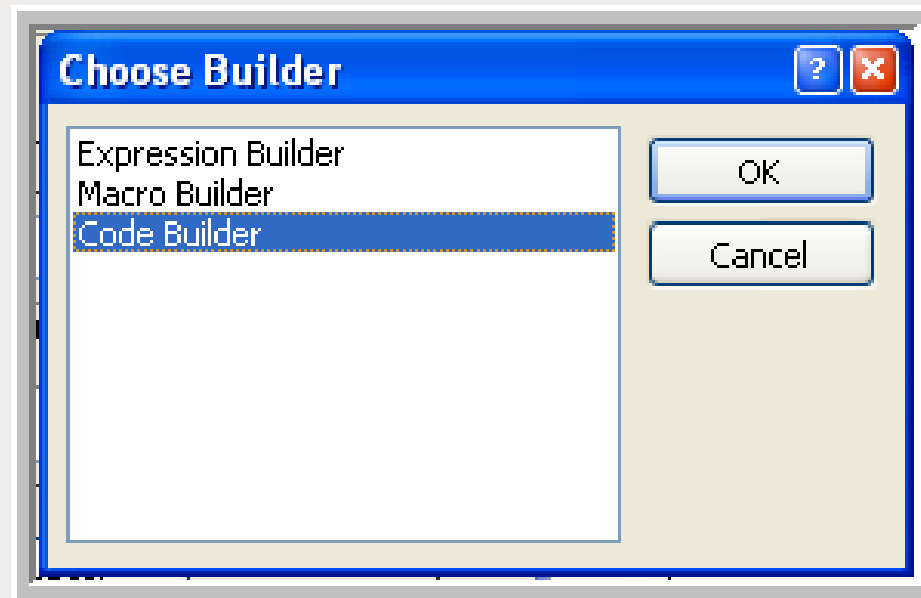
## Using VBA

- Next, select the Event tab and choose on the “On Click” line, then the ellipsis to create an event procedure.



## Using VBA

- Select “Code Builder” from the dialog box.



# Using VBA

- At this point, let's look at the code line by line

```
OK Click
Option Compare Database
Option Explicit
Public intRecordCount As Integer 'variable to count our records

Private Sub OK_Click()
On Error GoTo Err_OK_Click

' check for path and filename
If IsNull(Me.SelFileName) Then
    MsgBox "You must enter the path and filename.", vbCritical, "Error"
    Me.SelFileName.SetFocus
    GoTo Exit_OK_Click
End If

DoCmd.Hourglass (True) 'turn on the hourglass
Call WriteFile
DoCmd.Hourglass (False) 'turn off the hourglass
' open message box to display count and file name
MsgBox "Exported " & intRecordCount & " records to " & Me.SelFileName & "."

DoCmd.Close acForm, "marketer_student_list"

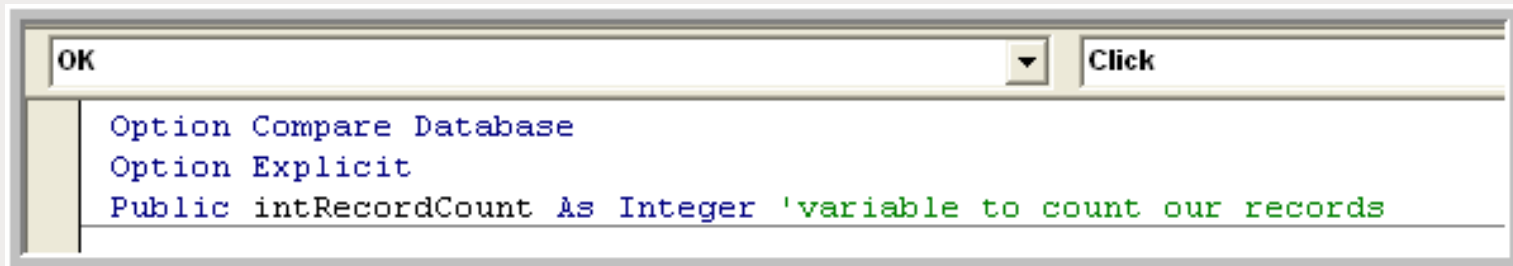
Exit_OK_Click:
Exit Sub

Err_OK_Click:
MsgBox Err.Description
Resume Exit_OK_Click

End Sub
```

## Using VBA

- **Option Explicit** forces you to declare all variables before you can use them, which can be very helpful in debugging.
- The next line declares a variable we can use to count how many records we extract.



A screenshot of a VBA code editor window. The window has a title bar with 'OK' on the left, a dropdown arrow in the center, and 'Click' on the right. The code editor area contains the following text:

```
Option Compare Database
Option Explicit
Public intRecordCount As Integer 'variable to count our records
```



## Using VBA

- We need to make sure a path and filename was entered for us to write our record to.

```
Private Sub OK_Click()  
On Error GoTo Err_OK_Click  
  
' check for path and filename  
If IsNull(Me.SelFileName) Then  
    MsgBox "You must enter the path and filename.", vbCritical, "Error"  
    Me.SelFileName.SetFocus  
    GoTo Exit_OK_Click  
End If
```

## Using VBA

- This is the meat of the controlling subroutine.

```
DoCmd.Hourglass (True) 'turn on the hourglass
Call WriteFile
DoCmd.Hourglass (False) 'turn off the hourglass
' open message box to display count and file name
MsgBox "Exported " & intRecordCount & " records to " & Me.SelFileName & "."

DoCmd.Close acForm, "marketer_student_list"

Exit_OK_Click:
Exit Sub
```

## Using VBA

- Now for the WriteFile routine
- First, define some needed variables

```
Public Sub WriteFile()  
    Dim cnn As New ADODB.Connection  
    Dim rst As New ADODB.Recordset  
  
    Dim strSQL As String  
    Dim intResult As Integer 'receives values from progress bar
```

## Using VBA

```
'build the string that contains the selection criteria, pulling in the term code
'from the combo box chosen by the user.
strSQL = "SELECT [last_name] & ', ' & " & _
"[first_name] & ', ' & " & _
"[middle_initial] & ', ' & " & _
"[street1_line1] & ', ' & " & _
"[street1_line2] & ', ' & " & _
"[city1] & ', ' & " & _
"[state1] & ', ' & " & _
"[zip1] & ', ' & " & _
"[majr_desc1] AS name_address " & _
"FROM baninst1_as_student_enrollment_summary " & _
"WHERE (((baninst1_as_student_enrollment_summary.term_code_key)= '" & Me!Term_Code.Value & "') " & _
"AND ((baninst1_as_student_enrollment_summary.registered_ind) = 'Y') " & _
"AND ((baninst1_as_student_enrollment_summary.deceased_ind) Is Null " & _
"      Or (baninst1_as_student_enrollment_summary.deceased_ind)='N') " & _
"AND ((baninst1_as_student_enrollment_summary.confidentiality_ind) Is Null " & _
"      Or (baninst1_as_student_enrollment_summary.confidentiality_ind)='N'))); "
```

## Using VBA

- Define the database connection.
- Create our record set by executing the Select statement.
- Open our flat file for output.

```
Set cnn = CurrentProject.Connection 'defines the connection we already have  
rst.Open strSQL, cnn, adOpenForwardOnly, adLockOptimistic
```

```
Open Me.SelFileName For Output As #1  
intRecordCount = 0
```

## Using VBA

- Set up the progress bar based on an estimated 5500 records.
- Write the header record into our flat file.

```
intResult = SysCmd(acSysCmdInitMeter, "Exporting records", 5500) 'set up progress bar  
Print #1, "Last Name, First Name, Mid Initial, Address 1, Address 2, City, St, Zip, Major" 'header record
```

## Using VBA

- Here's the loop that writes the flat file.

```
'loop through all the records in the query
Do Until rst.EOF
    Print #1, rst!name_address
    intRecordCount = intRecordCount + 1
    intResult = SysCmd(acSysCmdUpdateMeter, intRecordCount) 'update progress bar
    rst.MoveNext
Loop
```

# Using VBA

- Close files and cleanup

```
intResult = SysCmd(acSysCmdRemoveMeter)           'turn off the progress bar

Close #1 'close output file

rst.Close 'close recordset
Set rst = Nothing 'release recordset memory
GoTo Done

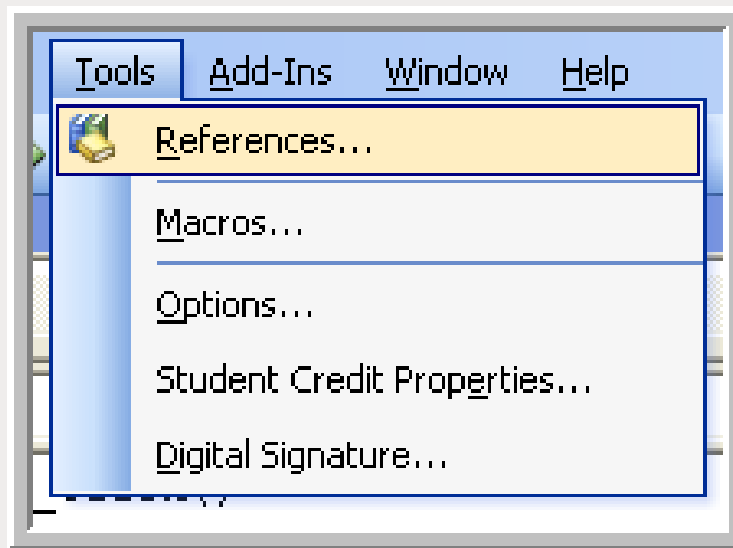
Err_WriteFile:
    MsgBox Err.Description

Done:
End Sub
```



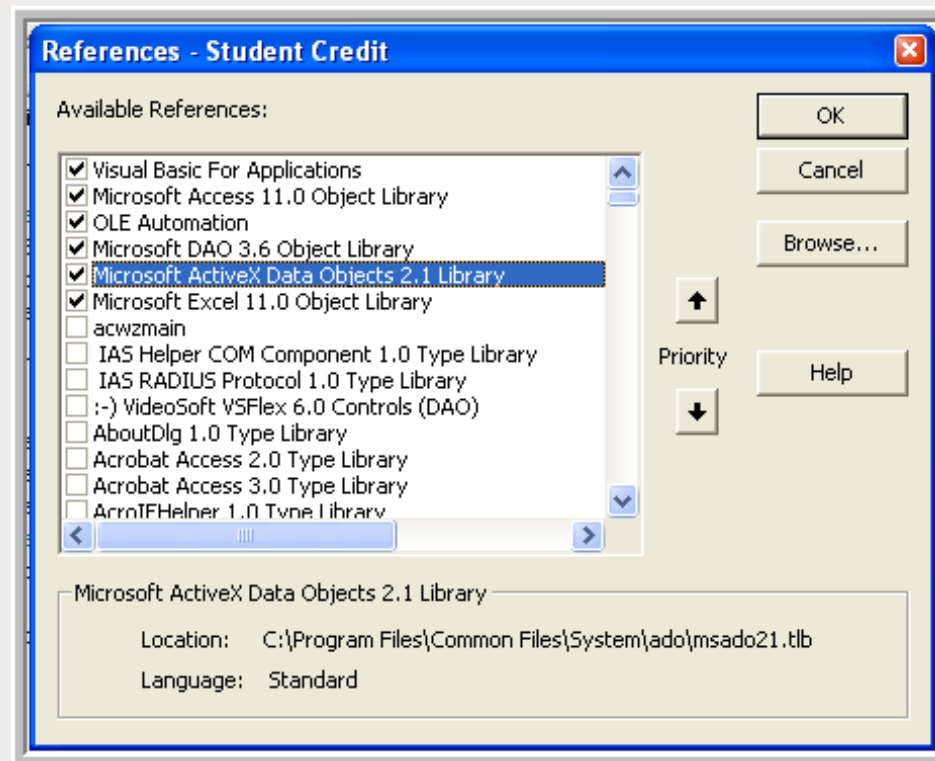
## Using VBA

- One more item about using ADO. References need to be set. From within the VBA editor, select Tools and References



## Using VBA

- Here are the references I have turned on. The highlighted reference is for the ADO library.



## Summary

- **Using forms in Microsoft Access can create a more user-friendly reporting system.**
- **Forms can give you full control over export formatting.**

## Resources

- [BannerAccess@yahoogroups.com](mailto:BannerAccess@yahoogroups.com)
- <http://www.utteraccess.com/>
- **Microsoft Access VBA Programming for the Absolute Beginner, by Michael Vine, second edition. Publisher Thomson Course Technology, ISBN 1-59200-723-6**
- **Special Edition Using Microsoft Office Access 2003 by Roger Jennings, Publisher Que, ISBN 0-7897-2952-0**
- **Access 2003 Programming Weekend Crash Course, multiple authors include Cary Prague. Publisher Wiley. ISBN 0-7645-3975-2**

## Questions & Answers

- **Be sure to leave about 10-15 minutes for questions from your audience**

# Thank You!

## Presenters

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**David Johanson**

**johansond@wcjc.edu**

**Please complete the online class evaluation form  
Course ID 837**

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