



ISE 211 - Industrial Information Systems Databases and Analysis

Lecture 10 - Chapter 6 - 3

Design Of

User / Machine Interface



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Agenda

- Single Table Form Completed (**Lecture 9**)
- Forms Based On More Than One Table
 - Master/Detail Form
 - Establishing Relationships
 - Designing a Form Based On Purpose
 - Master/Detail For Data Entry
 - Sub form based on Query
- Master/Detail Form - Summary
- Project Discussions




Single Form

Lecture 8

VENDOR

The University Food Company
Balçova - İzmir

 VENDORS

Select Vendor Name

VENDOR_ID:

V_NAME:

ADDRESS:

PHONE:

FAX:

V_CONTACT:

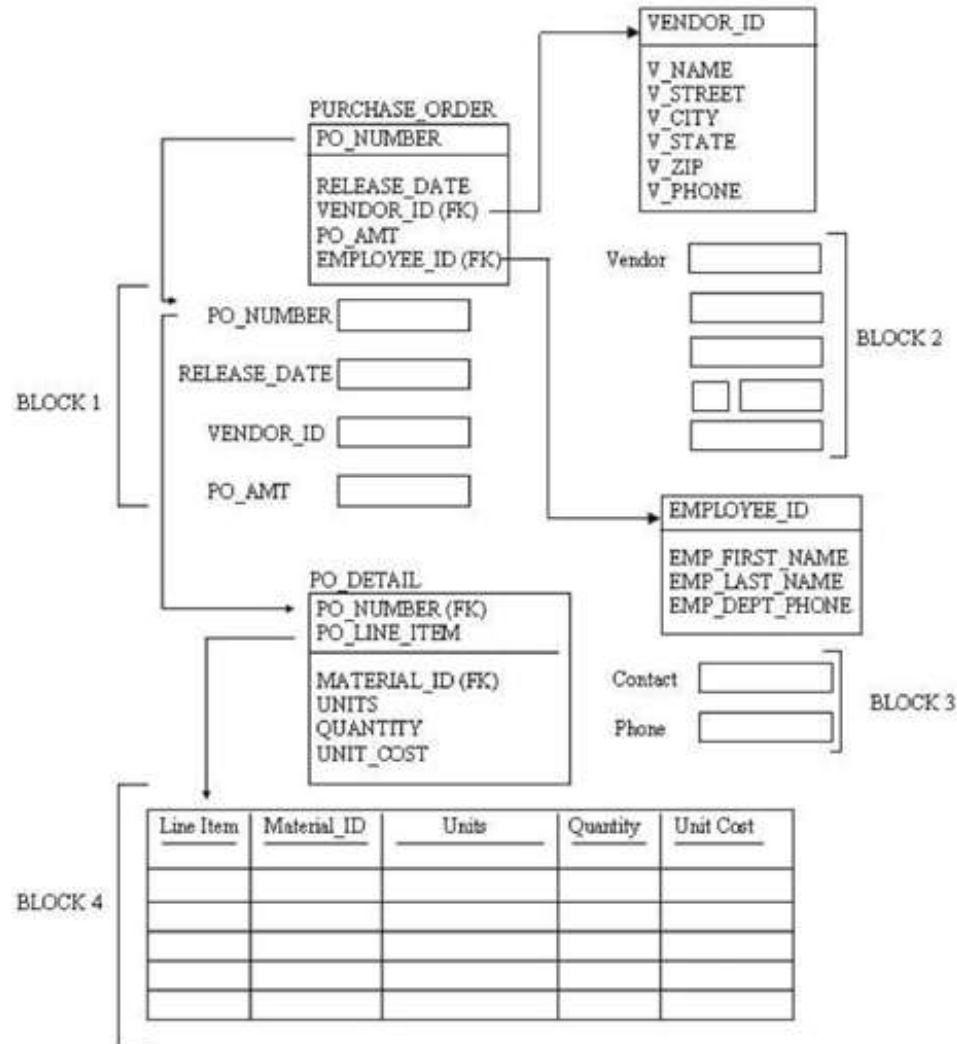
Login

Kayıt: 1 / 5 Filtre Yok



Master/Detail Form

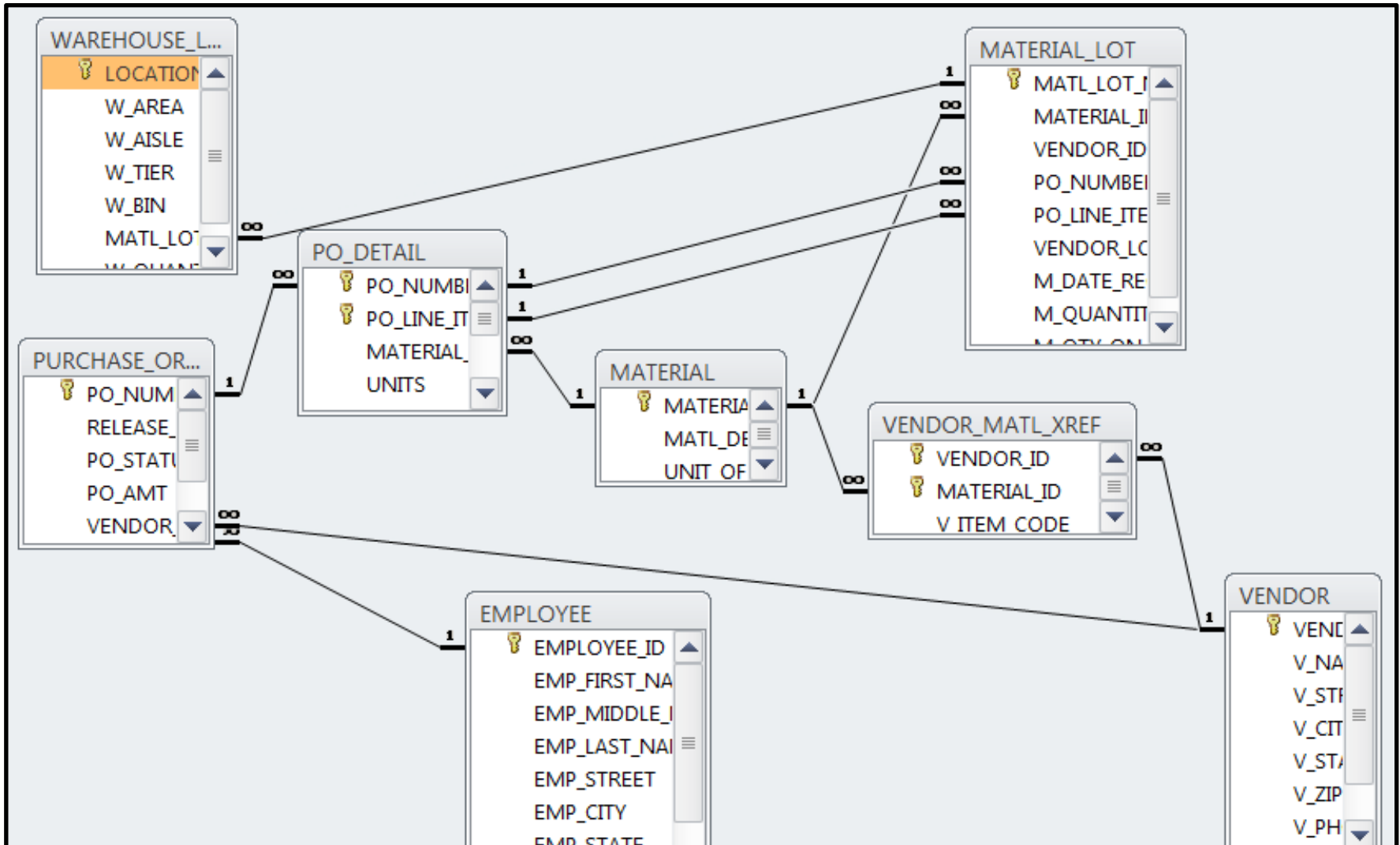
Template Of Master /Detail Form Blocks





Relationship Window (Lab 6.13)

Establishing Relationships (Enforce Relational Integrity)



Lab 6.14

Access Exercise 6.14:

We want to establish the main form based on the *PURCHASE_ORDER* table.

1. Open the database *Material_Manager_CH6_stu* and left click on the “Forms” tab.
2. Select “*Create form by using wizard*” and, from the pull down menu, choose the table that will serve as the master table. This is the *PURCHASE_ORDER* table.
3. Choose all the fields. Click on Next.
4. Choose Columnar Layout. Click on Next.
5. Choose Standard style. Click on Next.
6. Use the title: Purchase Order Master Form. Click on Finish.

The screenshot shows the 'Purchase Order Master Form' in Columnar Layout view. The form title is 'Purchase Order Master Form'. The fields are arranged in a columnar layout with labels on the left and input boxes on the right. The data entered is as follows:

Field Name	Value
PO_NUMBER	2591
RELEASE_DATE	2/10/2006
PO_STATUS	CLOSED
PO_AMT	\$4,300.00
VENDOR_ID	V110
EMPLOYEE_ID	000-23-8900
EST_FREIGHT	\$430.00

At the bottom, the status bar shows 'Record: 1 of 6' and 'No filter'.

The screenshot shows the 'Purchase Order Master Form' in Standard Form view. The form title is 'PURCHASE ORDER ENTRY'. The form is for 'The University Food Company' at '1776 New England Avenue, Piscataway, NJ 08854'. The data entered is as follows:

Field Name	Value
PO_NUMBER	2591
RELEASE_DATE	2/10/2006
PO_AMT	\$4,300.00
PO_STATUS	CLOSED
EST_FREIGHT	\$430.00
VENDOR_ID	V110
EMPLOYEE_ID	000-23-8900
Vendor List	Jersey Vegetable Co.
V_NAME	Jersey Vegetable Co.
V_STREET	7 Main St
V_CITY	Patterson
V_STATE	NJ
V_ZIP	07055
V_PHONE	912-555-2300
Employee List	Swartz
EMP_FIRST_NAME	Joseph
EMP_LAST_NAME	Swartz
EMP_DEPT_PHONE	308-445-365

Below the vendor information is a 'Purchase Order Line Items' table:

PO_LINE_ITEM	QUANTITY	MATERIAL_ID	UNIT_COST	UNITS	BALANCE	PROMISED_DEL_DATE	STATUS
1	1000	RM201	\$2.00	LB	0	2/20/2006	CLOSED

At the bottom, the status bar shows 'Record: 14 of 6'.

[Start By Downloading](#)

Lab 6.15

Access Exercise 6.15:

We want to establish the *VENDOR* subform.

1. Open the database `Material_Manager_CH6_stu` and left click on the “Forms” tab.
2. Select “*Create form by using wizard*” and, from the pull down menu, choose the table that will serve as the form table. This is the `VENDOR` table.
3. Choose the fields shown in Figure 6.24: `V_NAME`, `V_STREET`, `V_CITY`, `V_STATE`, `V-ZIP`, `V_PHONE`. Click on Next.
4. Choose Columnar Layout. Click on Next.
5. Choose Standard style. Click on Next.
6. Use the title: Vendor Subform. Click on Finish.

VENDOR1	
V_NAME	Je Co.
V_STREET	2 Main St.
V_CITY	Patterson
V_STATE	NJ
V_ZIP	07055
V_PHONE	912-555-2300

Record: 1 of 5 No Filter Search

Lab 6.16

Access Exercise 6.16:

We want to bind the master/detail form.

1. With the Vendor Subform closed, open the Purchase Order Master Form in Design View. Enlarge the form to make some room for the Vendor Subform as shown in Figure 6.27.
2. Move the Purchase Order form away from the **Material_Manager_CH6_stu** database window so that the Vendor Subform name is visible.
3. Left click the mouse button on the Vendor Subform name and hold the button down. Drag the cursor on to Purchase Order Master Form and place it on the Detail section where you would like to place the subform. Release the mouse button and the subform will appear on the main form. Position it below the main form information (see Figure 6.27).
4. Delete the Vendor Subform label.
5. Relational integrity must now be established. Select the Vendor Subform by clicking on it. Then open the Properties window. Under the Data tab there are two relevant properties of the Subform: **“Link Child Fields”** and **“Link Master Fields”**. These fields must contain the names of the foreign key attributes that link the subform and the master form. In both fields enter the following: **VENDOR_ID** (see Figure 6.28). Close the window.
6. At this point the two forms should be a functional master/detail form. Check the functionality by going to the Forms view and scrolling through the records. The records should be coordinated with each other through the relational integrity that was established. Figure 6.29 shows the form in form view at this point.

Purchase Order Master Form

PURCHASE ORDER ENTRY

The University Food Company
1776 New England Avenue
Philadelphia, NJ 08104

PO_NUMBER: [text] ORDER_DATE: [date] VENDOR_ID: [text]
ORDER_DATE: 1/15/2008 VENDOR_ID: 10001000
PO_AMOUNT: [text] PO_STATUS: [text]
PO_AMOUNT: 100000 VENDOR_ID: [text]

V_NAME: Green Vegetable Co.
V_ADDRESS: 2 Main St
V_CITY: Philadelphia
V_STATE: PA
V_ZIP: 19104
V_PHONE: 610-234-1234

Lab 6.17



Access Exercise 6.17:

We want to add a combo box for retrieving vendor ID's.

1. Open the database **Material_Manager_CH6_stu** and left click on the "Forms" tab.
2. Open **Purchase Order Master Form** in Design View.
3. From the Toolbox, select a combo box and place it on the form in the position shown for the "Vendor List" combo box in Figure 6.31. The combo box wizard window will appear.
4. Select the option: "***I want the combo box to look up values in a table or query.***" Click Next.
5. Select the **VENDOR** table. Click on Next.
6. Select the following fields: **VENDOR_ID, V_NAME**. Click on Next.
7. The combo box wizard will ask how you want the fields sorted. Choose the field **V_NAME** and sort in the Ascending order.
8. Choose the default "***Hide the key column***". Click on Next.
9. Select "***Store that value in this field: VENDOR_ID***". Click Next.
10. Name the combo box: **Vendor List**.

Lab 6.18



Access Exercise 6.18:

We want to establish the *PO Detail subform*.

1. Open the database **Material_Manager_CH6_stu** and left click on the “Forms” tab.
2. Select “Create form by using wizard” and, from the pull down menu, choose the table that will serve as the form table. This is the ***PO_DETAIL table***.
3. Choose the fields shown in Figure 6.24 in the following order: **PO_LINE_ITEM**, **MATERIAL_ID**, **UNITS**, **QUANTITY**, **UNIT_COST**, **PROMISED_DEL_DATE**, **BALANCE**, **STATUS**. Click on Next.
4. Choose Columnar Layout. Click on Next.
5. Choose Standard style. Click on Next.
6. Use the title: **PO Detail Subform**. Click on Finish.

Lab 6.19



Access Exercise 6.19:

We want to add a *combo box* for retrieving material ID and vendor material code by vendor.

1. Open the database **Material_Manager_CH6_stu** and left click on the “Forms” tab.
2. Open Purchase Order Master Form in design view.
3. From the toolbox, select a combo box and place it on the form in the position shown for the “*Vendor Material Code Lookup*” combo box in Figure 6.24. The combo box wizard window will appear.
4. Select the option: “*I want the combo box to look up values in a table or query*”. Click Next.
5. Select the table: **VENDOR_MATL_XREF**. Click on Next.
6. Select the following fields: **VENDOR_ID**, **MATERIAL_ID**, **V_ITEM_CODE**. Click on Next.
7. Adjust column widths so that all attributes are visible. Click Next.
8. Choose the fields **VENDOR_ID**, **MATERIAL_ID** ascending. Click on Next.
9. Name the combo box: **Vendor Material Code Lookup**. Click Finish.
10. Put Purchase Order Master Form in Form View and observe that you can verify that a **VENDOR_ID** is able to provide a particular **MATERIAL_ID** and that there exists an associated **V_ITEM_CODE**. This is illustrated in Figure 6.32.

Lab Work



Purchase Order Master Form

PURCHASE ORDER ENTRY

The University Food Company
1776 New England Avenue
Piscataway, NJ 08854

PO NUMBER: 2591 VENDOR ID: V110
RELEASE_DATE: 2/10/2006 EMPLOYEE_ID: 000-23-8900
PO_AMT: \$4,300.00
PO_STATUS: CLOSED Vendor List: Jersey Vegetable Co.
EST_FREIGHT: \$430.00

Employee List: Swartz

EMP_FIRST_NAME: Joseph
EMP_LAST_NAME: Swartz
EMP_DEPT_PHONE: 908-445-365

V_NAME: Jersey Vegetable Co.
V_STREET: 2 Main St.
V_CITY: Paterson
V_STATE: NJ
V_ZIP: 07055
V_PHONE: 912-555-2300

Vendor Material Code Lookup

PO_LINE_ITEM	QUANTITY	MATERIAL_ID	UNIT_COST	UNITS	BALANCE	PROMISED_DEL_DATE	STATUS
1		RM201		LB		2/20/2006	

Vendor Code	Material Code	Quantity
V110	RM201	4563
V110	RM202	3423
V110	RM203	9899
V110	RM210	546
V110	RM211	765
V25	RM201	A222
V25	RM205	A234
V25	RM318	C677

Record: 1 of 3
Record: 1 of 6

Figure 6.32 Using a combo box to confirm vendor codes.

Lab Work 6.20



Access Exercise 6.20:

We want to design a subform based on the Query: *PO_DetailQuery*.

1. Open the database **Material_Manager_CH6_stu** and left click on the “Forms” tab.
2. Select “**Create form by using the Wizard.**”
3. From the Form Wizard window select “**Query: PO_DetailQuery**” from the Tables/Queries pull down menu.
4. Under “**Available Fields**” select only those fields that will appear on the subform and in the order they will appear as follows: **PO_LINE_ITEM, V_ITEM_CODE, MATL_DESCRIPT, UNITS, QUANTITY, UNIT_COST**. Click Next.
5. Choose Datasheet Layout. Click on Next.
6. Choose Standard Style. Click on Next.
7. Name the Form: Printable **PO_Detail Subform**. Click Finish.
8. On putting the form into Form View, it should appear as Figure 6.35.



Lab Work

```
PO_DETAILQuery : Select Query
SELECT PURCHASE_ORDER.PO_NUMBER, PO_DETAIL.PO_LINE_ITEM, VENDOR_MATL_XREF.V_ITEM_CODE,
      MATERIAL.MATL_DESCRIPTOR, PO_DETAIL.UNITS, PO_DETAIL.QUANTITY, PO_DETAIL.UNIT_COST
FROM PURCHASE_ORDER, PO_DETAIL, VENDOR_MATL_XREF, MATERIAL
WHERE (PURCHASE_ORDER.PO_NUMBER=PO_DETAIL.PO_NUMBER) AND
      (PURCHASE_ORDER.VENDOR_ID=VENDOR_MATL_XREF.VENDOR_ID) AND
      (PO_DETAIL.MATERIAL_ID=MATERIAL.MATERIAL_ID) And
      (PO_DETAIL.MATERIAL_ID=VENDOR_MATL_XREF.MATERIAL_ID);
```

Figure 6.34 SQL code for PO_DETAILQuery.

PO LINE ITEM	V ITEM CODE	MATL_DESCRIPTOR	UNITS	QUANTITY	UNIT COST
1	4563	Carrots, whole	LB	1000	\$2.00
2	3473	Carrots, sliced, 1/4	LR	1000	\$2.00
3	9899	Potatoes, Eastern	LB	300	\$1.00
1	F444	Olive oil	GAL	800.5	\$0.50
2	F456	Vinegar, white	GAL	210.5	\$0.50
1	546	Peas, shelled	LB	1000	\$2.00
2	/65	Tomatoes, whole	LB	2000	\$1.00
1	2-414	Garlic, whole	LB	4000	\$0.50
2	2-564	Garlic powder	LB	2000	\$0.25
3	3-212	Salt, iodized	LB	2000	\$0.25
4	3-675	Sugar, bulk	LR	500	\$1.50
1	2-312	Paprika	LB	400	\$0.50
2	2-807	Onion Salt	LB	1200	\$0.25
1	666	Sugar, brown	LB	5000	\$0.20

Lab Work 6.21



Access Exercise 6.21:

We want to add the attribute “Total Cost” to *Printable PO_Detail Subform*.

1. Open *Printable PO_Detail Subform* in Design View. Changes made on this subform will automatically be reflected in the subform as displayed on the master form.
2. Make room in the Detail section for another attribute text box and label.
3. Open the Toolbox. Take a text box from the toolbox and position it under the `UNIT_COST` text box. A label should also appear next to the text box.
4. Change the caption of the label to “Total Cost”.
5. Place the cursor in the text box and type “`= [QUANTITY] * [UNIT_COST]`”. This equation defines the value of this field and the computation is automatic each time the quantity and unit cost fields change.
6. Open the Properties window for the text box and change the Format property to “Currency”. Change the Text Align property to “Right”.
7. Save the form and confirm the results by opening *Printable PO_Detail Subform* in Form View. Adjust the column widths as required. Save and close the subform.
8. Open *Printable Purchase Order Form* in Form View. Note that the changes made to *Printable PO_Detail Subform* now appear on the subform section of the main form. Go to the design view and adjust the borders of the form until it appears as shown in Figure 6.36.

Summary



Printable Purchase Order Form

PURCHASE ORDER

The University Food Company
1776 New England Avenue
Piscataway, NJ 08854

PO_NUMBER: 2591
RELEASE_DATE: 2/10/2006
PO_AMT: \$4,300.00
PO_STATUS: CLOSED
EST_FREIGHT: \$430.00

V_NAME: Jersey Vegetable Co.
V_STREET: 2 Main St.
V_CITY: Patterson
V_STATE: NJ
V_ZIP: 07055
V_PHONE: 912-655-2300

EMP_FIRST_NAME: Joseph
EMP_LAST_NAME: Swartz
EMP_DEPT_PHONE: 908-445-365

PO_LINE_ITEM	V_ITEM_CODE	MATL_DESCRIPTOR	UNITS	QUANTITY	UNIT_COST	Total Cost
1	4563	Carrots, whole	LB	1000	\$2.00	\$2,000.00
2	3423	Carrots, diced, 1/4	LB	1000	\$2.00	\$2,000.00
3	9889	Potatoes, Eastern	LB	300	\$1.00	\$300.00

Record: 1 of 6



Questions

Next Week – Macros, Reports, Menus

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