Laboratory #5

Form, Subform, Drop-down combo box

Topics:

- 1. Create forms
- 2. Create subforms
- 3. Create drop-down combo box

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1. In this laboratory session we will practice data entry using form/subform like the following.

2. Open the database "Lab 5A Start.mdb." Below is its ER diagram.



3. Create a new form to be used as the main form.

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| All Access Obje • « Tables * tblCotCodes tblDailyTimeCards tblDailyTimeCards tblProjectBudget tblProjectBudget tblProjectS Queries * qryTimeCardEntry Forms * frmDailyTimeCards frmDailyTimeCards frmDailyTimeCards frmDailyTimeCards frmDailyTimeCards frmEployees % mcrbailyTimeCards mcrbailyTimeCar | Form Wizard Which fields do you want on your form? You can choose from more than one table or query. I ables/Queries Table: IblEmployees Available Fields: Selected Fields: State Phone DateHired Uert VBate Cancel Cancel Next > Einish | | | | |

4. Below is the form created using the "AutoForm:Columnar" option.

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| File Home Create External Data Database Tool | s Add-ins Q Tell me what you want to do | Seonghyeon Moon |
| Application Parts ~ Table Table SharePoint Design Lists ~ Tables Charles Courters | Form Blank I More Forms - Forms - Forms - Form - Form - Form - Form - Forms - | Macro & Code |
| | | |
| Tables | | |
| tblCostCodes | | |
| tbIDailyTimeCards | Form Wizard | |
| tblEmployees | What layout would you like for your form? | |
| tbIProjectBudget | | |
| tbIProjects | / | |
| Queries 🌣 | | |
| aryTimeCardEntry | | |
| Fill frmDailyTimeCards | OJustified | |
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5. Edit the form and save it as "frmTimeCardEntryMain."

6. Next, create a new form to de used as the subform.

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| File Home Create Ext | ternal Data Database Tools Add-ins Q Tell me what you want to do | Seonghyeon Moon |
| Application Parts ~ Templates Tables | Image: Construction of the second | |
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| IrmDailyImeCards IrmEnployeeRecords IrmTimeCardStructure IrmTimeCardStructure IrmTimeCardStructure rpDailyTimeCards | BirthDate Available Fields: Selected Fields: Address 3001 City Aust State TX Zin 7271 | |
| rptEmployees Macros 2 mcrExit 2 mcrViewEditEmployee 2 mcrViewEditEmployee | Phone (512 DateHired Title Cler Cancel < Back Next > Enish HourlyRate 10 | |
| mcrViewPrintReports | Record: H (1 of 3) H H K Isearch | |

7. Save the subform as "frmTimeCardEntrySub."

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| Tables tblCostCodes tblDsibTaseCode tblDsibTase | 🗐 frmTimeCardEntryMain — 🗆 🗙 | |
| tblEmployees | frmTimeCardEntryM Firm Wizard | |
| til tbiProjectBudget til tbiProjects Queries quries qurimeCardEntry Forms fmDailyTimeCards | EmployeeID 111- LastName Smit FirstName John | |
| frmEmployeeRecords | BirthDate form. Do you want to open the form or modify the form's design? | |
| frmTimeCardEntryMain Reports | City Aust State TX Open the form to view or enter information. O Modify the form's design. | |
| rptDailyTimeCards rptEmployees Macros \$ | Zip 7871 Phone (512 | |
| mcrExit mcrViewEditEmployee | Title Cler Cancel <back (jext=""> Enish</back> | |
| mcrViewEditEmployeeTimeCa | HourlyRate 10 | |
| 2 mcrViewPrintReports | Record: H < 1 of 3 > H H To Filter Search | |

8. Below are the properties of the subform.

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| | | | Caption | frmTimeCardEntrySub |
| tblProjectBudget | | | Default View | Datasheet |
| tbIProjects | | | Allow Form View | Yes |
| Oueries * | EmployeeID | 111-22-3333 | Allow Datasheet View | Yes |
| an Time CoudEntry | LastNamo | Cura ith | Allow Layout View | Yes |
| ga drynnecardentry | Lastivalle | Smith | Picture type | Embedded |
| Forms * | FirstName | John | Picture | No |
| frmDailyTimeCards | | | Picture Alignment | Center |
| The free Employee Deserves | BirthDate | 1070-01-00 | Picture Size Mode | Clip |
| -a Innemployeekecolds | Address | frmTimeCardEntrySub | - 🗆 🗙 Width | 11.656cm |
| frmMainWindow | | 3 4 5 6 7 . | Auto Center | Yes |
| | City | | Auto Resize | Yes |
| | State | r | Fit to Screen | Yes |
| frmTimeCardEntrySub | - frm Tin | oCordEntrySub | Border Style | Sizable |
| Reports * | Zip | lecaluentiysub | Record Selectors | Yes |
| Int DailyTimeCards | | | Navigation Bullons | Tes |
| a iptoally iniccards | Phone | | Dividing Lines | Ves |
| rptEmployees | DateHired | | Scroll Bars | Both |
| Macros * | Duternieu | | Control Box | Yes |
| 7 mcrEvit | Title Employe | eID EmployeeID | Close Button | Yes |
| | Usurdu Data 1 | cinpite years | Min Max Buttons | Both Enabled |
| Control Con | Houriykate – DateWor | ked DateWorked | Moveable | Yes |
| mcrViewEditEmployeeTimeCa | Record: H 4 1 of 3 2 Project | BrojectID | Split Form Size | Auto |
| | Projecti | Projectio | Split Form Orientation | Datasheet on Top |
| Control Con | 4 | | Split Form Splitter bar | Allow Edits |
| | | | Split Form Datasheet | Form Only |
| | | | Save Splitter Bar Positio | n Yes |
| | | | Subdatasheet Expande | d No |
| | | | Subdatasheet Height | Ocm |
| | | | Grid X | 10 |
| | | | Grid Y | 10 |
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9. Drag and drop the subform into the main form.

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| tblCostCodes | | | | 17. 1. 18. 1. 19. 1. 20. 1. 21 |
| tblang innecards tblEmployees tblProjectBudget | s state | Lity State | | |
| tbIProjects | 6 Zip | Zip | | |
| Queries * | - Phone - | Phone | | |
| qryTimeCardEntry Forms | 7 DateHired | DateHired Title | | |
| frmEmployeeRecords | HourlyRate | HourlyRate | | |
| frmTimeCardEnto(Main | | | | |
| | | 1 • 4 • 1 • 5 • 1 • 6 • 1 • 7 • 1 • 8 • 1 • | 9 + 1 + 10 + 1 + 11 + 1 🔺 | |
| Reports rptDailyTimeCards rptEmployees Macros | 11 Form Header 12 Form TimeCa 4 Detail | rdEntrySub | | |
| 2 mcrViewEditEmployee | 14 - EmployeeID | EmployeeID | | |
| mcrViewEditEmployeeTimeCa mcrViewPrintReports | 15 DateWorked | DateWorked ProjectID | | |
| | - View Form Footer | | | |
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10. Below are the linking properties between the main form and the subform.

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11. Main form and subform are linked.

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| Tables ♠ Image: tblCostCodes Image: tblDailyTimeCards | fr | rm Time Card Entry I | Main | | |
| tblEmployees tblProjectBudget | | EmployeeID 11 | 1-22-3333 | | |
| tbIProjects | | LastName Sm | hith | | |
| Queries * | | FirstName Jo | hn | | |
| gryTimeCardEntry | | BirthDate | 1970-01-02 | | |
| frmDailyTimeCards | | Address 30 | 0 Burnet | | |
| frmEmployeeRecords | | City Au | istin | | |
| == frmMainWindow | | State TX | | | |
| FrmTimeCardEntryMain | | Zip 78 | 712 | | |
| frmTimeCardEntrySub | | Phone (51 | 12) 111-1111 | | |
| Reports | | DateHired | 1996-02-03 | | |
| rptEmployees | | Title | erk | | |
| Macros * | | HourlyRate | 10 | | |
| 📿 mcrExit | | | | | |
| mcrViewEditEmployee | | frmTimeCardEntrySub | | | |
| mcrViewEditEmployeeTimeCa | | Z EmployeeID | I DateWorked I P | rojectID | |
| mcrViewPrintReports | | 111-22-3333 | 1998-09-01 111 | | |
| | | 111-22-3333 | 1998-09-01 111 | | |
| | | 111-22-3333 | 1998-09-01 222 | | |
| | | 111-22-3333 | 1996-09-02 222 | | |
| | Recor | d: H ≺ 1 of 3 → H 📲 🍢 No | Filter Search | | |

12. Adjust the size of the subform

13. Create a query to display project IDs and names.

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| File Home Create Ext | ernal Data Database Tools Add-ins | Design Q Tell me what you want to do | | Seonghyeon Moon |
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| All Access Obje 💌 « | | | | |
| tblCostCodes | | Query1 | | – 🗆 X |
| tbiDailyTimeCards tbiEmployees tbiProjectBudget tbiProjectS qurites rmDailyTimeCardEntry Forms af rmDailyTimeCardS af rmEmployeeRecords af rmMainWindow frmTimeCardEntrySub Renorts af rmTimeCardEntrySub | tblProjects | Save As ? X Query Name: qryProjectIDsAndNames OK Cancel | | × • |
| rptDailyTimeCards | | | | |
| rptEmployees Macros 2 mcrExit 2 mcrViewEditEmployee 2 mcrViewEditEmployeeTimeCa 2 mcrViewPrintReports | Field: ProjectID ProjectNa Table: tblProjects tblProject Sott: Show: Or: or: + | imme imme s imme g imme | | |

14. Previous query will be used to create a list selection using a combo box in the subform.

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|---|-----------------------------------|---|-------------------------------------|------------------------|
| File Home Create Exte | ernal Data Database Tools Add-ins | Design Arrange Format | Q Tell me what you want to do | Seonghyeon Moon |
| ProjectID Calibri (Detail) | ▼ 11 ▼ 🖋 Formatting ~ | | → Shape Fill ▼ ✓ Shape Outline ▼ | |
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| tblProjectBudget | 1 2 3 | . 1 - 4 - 1 - 5 - 1 - 6 - 1 - 7 - 1 - 8 - 1 - | 9 · · · 10 · · · 11 · Build Event | |
| tbIProjects | Form Header | | Build | |
| Queries * | frmTimeCa | rdEntrySub | C <u>h</u> ange To | abl Text Box |
| gryProjectIDsAndNames | <u>-</u> | | Tab Order | A La <u>b</u> el |
| gryTimeCardEntry | | | K Cu <u>t</u> | E List Box |
| Forms * | | | Сору | Combo Box |
| TrmDallyTimeCards | 1 EmployeeID | EmployeeID | E Paste | Check Box |
| frmEmployeeRecords | DateWorked | DateWorked | 😰 <u>P</u> aste Formatting | Toggle Button |
| | 2 ProjectID | ProjectID | Insert | Option Button |
| -a frmilmeCardEntryMain | 3 GestCode | CostCode | <u>M</u> erge/Split | ▶ laġ Image |
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15. Set the Row Source of the combo box to display the list from the query.

16. Set the number of columns, widths, and list width.

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|---|-------------------------------------|-----------------------|---|--|--|
| File Home Create E | xternal Data Database Tools Add-ins | Design Arrange Format | Q Tell me what you want to do | | Seonghyeon Moon |
| View Themes A Fonts | ab) Aa 🔤 🗋 🌐 XVZ | Insert | Logo Title Date and Time Add Existing Fields | Property Sheet Order | w Window Macros to Visual Basic |
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17. That's the result.

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| tblDailyTimeCards | | ' | | | |
| tblEmployees | Distboate | 1070 | 24.02 | | - |
| tblProjectBudget | BirthDate | 1970- | J1-02 | | |
| 🖽 tblProjects | Address | 300 Burnet | | | |
| Queries 🌣 | City | Austin | | | |
| qryProjectIDsAndNames | State | ТХ | | | |
| gryTimeCardEntry | Zip | 78712 | | | |
| Forms A | Phone | (512) 111-11 | 11 | | |
| real frmEmployeeDecords | DateHired | 1996- | 02-03 | | |
| The free Main Mindow | Title | Clerk | | | |
| | HourlyRate | | 10 | | |
| frmTimeCardEntrySub | | | | | |
| Reports A | frmTimeCar | rdEntrvSub | | | |
| rptDailyTimeCards | | EmployeeID 🚽 | ProjectID - DateV | Vorked - | |
| rptEmployees | 111-22- | -3333 | 111 🔽 19 | 98-09-01 03000 | |
| Macros 🌣 | 111-22- | -3333 | 111 Setor | Hospital Renovation | |
| 2 mcrExit | 111-22- | -3333 | 222 Travis | County Courthouse | |
| 2 mcrViewEditEmployee | 111-22- | -3333 | 333 Court | yard Marriott Hotel | |
| 2 mcrViewEditEmployeeTimeCa | 111-22- | -3333 | 222 19 | 98-10-05 04000 | |
| 2 mcrViewPrintReports | 111-22- | -2222 | 222 10 | 98-10-06 04000 | |
| | * 111-22- | .3333 | 555 19 | 50-10-00 02000 | |
| | 111-22- | 5555 | | | * |
| | Record: H 4 1 of 3 | ► H 🛤 🍢 No Filter Se | arch | | |

18. Create a query to display cost codes and descriptions.

| File Home Create External Data Database Tools Add-ins | Design Q Tell me what you want to do | Seonghyeon Moon |
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| View Run Results Query Type | Image: Show Table Image: Show Show Table Image: Show Show Show Show Show Show Show Show | erty Sheet Names |
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| tblDailyTimeCards | Save As ? × | |
| tblEmployees | Query Name: | |
| tblProjectBudget V CostCode | qryCostCode | |
| tblProjects Description | OK Cancel | |
| Queries * | | |
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| I frmDailyTimeCards | | |
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| 🖼 frmMainWindow | | |
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| rptDailyTimeCards Table: tblCostCodes tblCostCo | des | |
| Show: | | |
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| I is tobalyTimeCards I is tobalyTimeCards I is tobalyTimeCards I is tolEmployees I is tolEmployee <td>All tCode CostGote</td> | All tCode CostGote |

19. Previous query will be used to create a list selection using a combo box in the subform.

20. Set the number of columns, widths, and list width.

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21. Final Result

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22. Link the new form/subform to the application switchboard.

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Laboratory #5B

Functions in Forms

Topics:

1. Create custom functions

1. In this laboratory session we will use functions and procedures in form controls.

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| All Access Obje 🔊 « Tables * tblCompanyNames tblOrderDetails | Summarize total from another table | |
| I tolOrders Queries | Imvoice Main Form — × OrderD Invoice Subform showing Company Info. Subform OrderDate 1998-10-02 Company Name ABC Stores Address 111 Em Street Address Lint Em Street Address 112 Em Street Address Lint Em Street Total Amount: \$12,080.00 State Tx Zip 72712 Total Tax: \$13,076.60 Record: H < 1 of 3 H >No Filter Search | |
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2. Open the database "Lab 5B Start.mdb." Below are its tables.

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| Queries | | ABC Stores | 111 Elm Street | Austin | TX | 78712 | | |
| 🛗 📍 Query1 | . ■ a204 C | DEF Engineering | 666 First Street | Sacramento | CA | 92075 | | |
| Forms * | | GH Marketing | 201 Michigan Ave. | Chicago | IL | 60606 | | |
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| Datasheet View | | | | | | | Ni | um Lock 🔳 🕍 |

3. Using DSum Function.

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| tblOrders Queries & ♀ Queries & Forms & S frmInvolces-Main T frmInvolces-Sub Modules & Modules & Modules | Form Header Formerve Forme | ression Builder ran Expression to create a calculated contri- miples of expressions include [field1] + [field Sum("[UnitPrice]+[Quantity]", "tblOrderC pices-Main].[OrderID]"] ression Elements Sum("UnitPrice]+ Constants Constants Company Common Expressions Common Expressions Company Company Common Expressions Company C | 2) and [field1] < 5) etails","[OrderID]=Forms![fmn] etails","[OrderID]=Forms![fmn] Cancel Heip < <less Categories Expression Values Values AfterPicConfirm AfterPicConfirm AfterPicConfirm AfterFinaRender AfterFinaRender AfterFinaRender AfterInaRender AfterInaRender AfterInaRender AfterBender AfterBender</less | Control Source Text Format Input Mask Default Value Validation Rule Validation Text Filter Lookup Enter Lookup Locked | tter al = OSum['UntPrice]*[Quantity] [] Plain Text Database Default Yes No |
| Field name or expression to use as sou | rce for control | | | | Num Lock 🗉 🛅 🔛 |

4. Defining custom functions to find the tax rate based on the state.

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5. Visual Basic editor.

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| Project - CE 395 R2 - lab 5B | | | | |
| | & Lab5B Start_prac - Module1 (Code) | × | | |
| E88 CE 395 R2 - Iab 5B (Li E6≣ Modules | (General) V (Declarations) | ~ | | |
| Module1 | Dption Compare Database Option Explicit | ^ | | |
| | Function fntFindSalesTaxRate(stateName As String) As Single | | | |
| < >> | If stateName = "CA" Then fntFindSalesTaxRate = 0.0825 Exit Function | | | |
| Properties - Module1 | End If If stateName = "MO" Then | | | |
| Alphabetic Categorized | fntFindSalesTaxRate = 0.075 Exit Function End If | | | |
| (Name) Module1 | If stateName = "TX" Then fotEindSalesTayBate = 0.0825 | | | |
| | Exit Function End If | | | |
| | ' all other states which the company does not register | | | |
| | fntFindSalesTaxRate = 0 | | | |
| | End Function | | | |
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6. Calculated fields using expressions

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