

## Laboratory #2

### Table Relationships, Queries, and Reports

#### Topics:

1. Linking tables
2. Query definitions, fields from multiple tables
3. Report design, formatting, and calculated fields

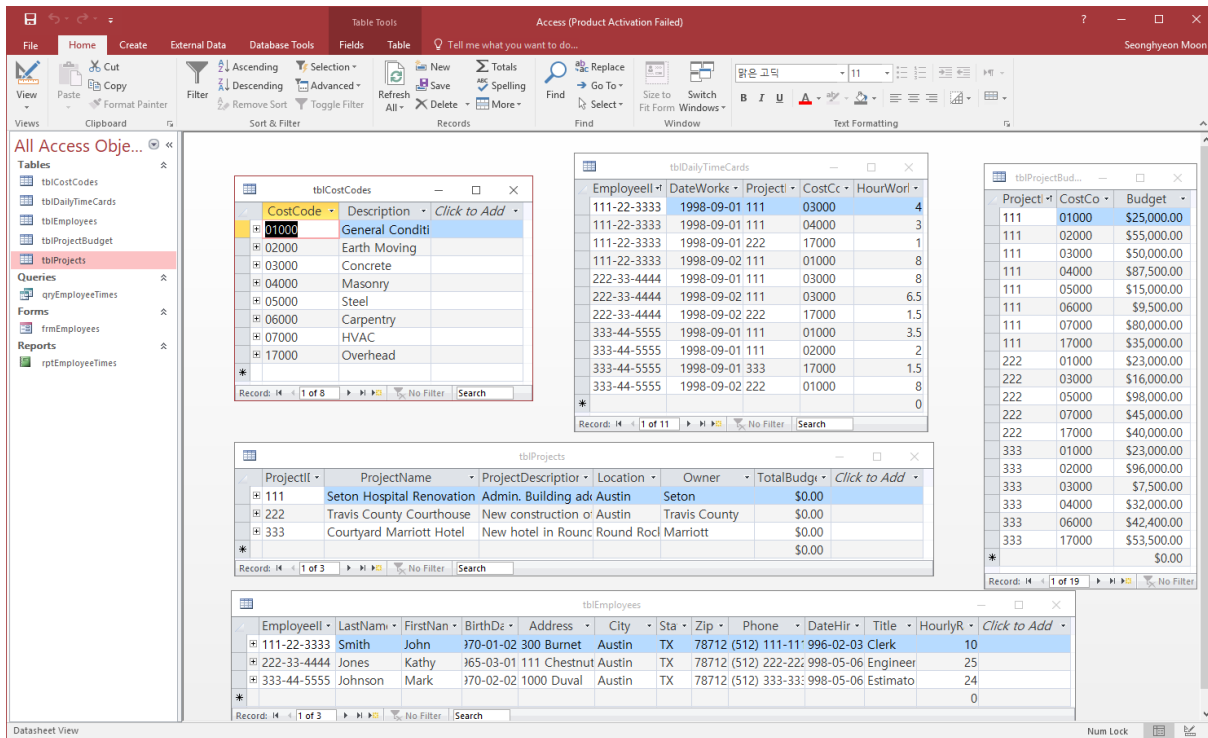
#### Homework #1: (Due Date: 2017/10/26)

1. Copy and rename the database. Expand the contents of tblEmployee table to include 20 records of made-up names and employee information. Experiment with sorting and locating a record in the table.
2. Design a custom form to display the employee data. Create a company logo and place it in the form header. Design and draw a simple graphic bitmap (using Windows Paint, 16-colors) and use it as the background of the form.
3. Add entries to the tblTimeCards table so that it covers at least 10 days of your 20 employees' work times. Assign Project ID and CostCode to each daily time card entry.
4. Design two reports: (a) a summary report of man-hours to date, showing individual's work hours for each employee, grouped by Project and CostCode, and (b) a summary report of cost to date grouped by Project and CostCode.

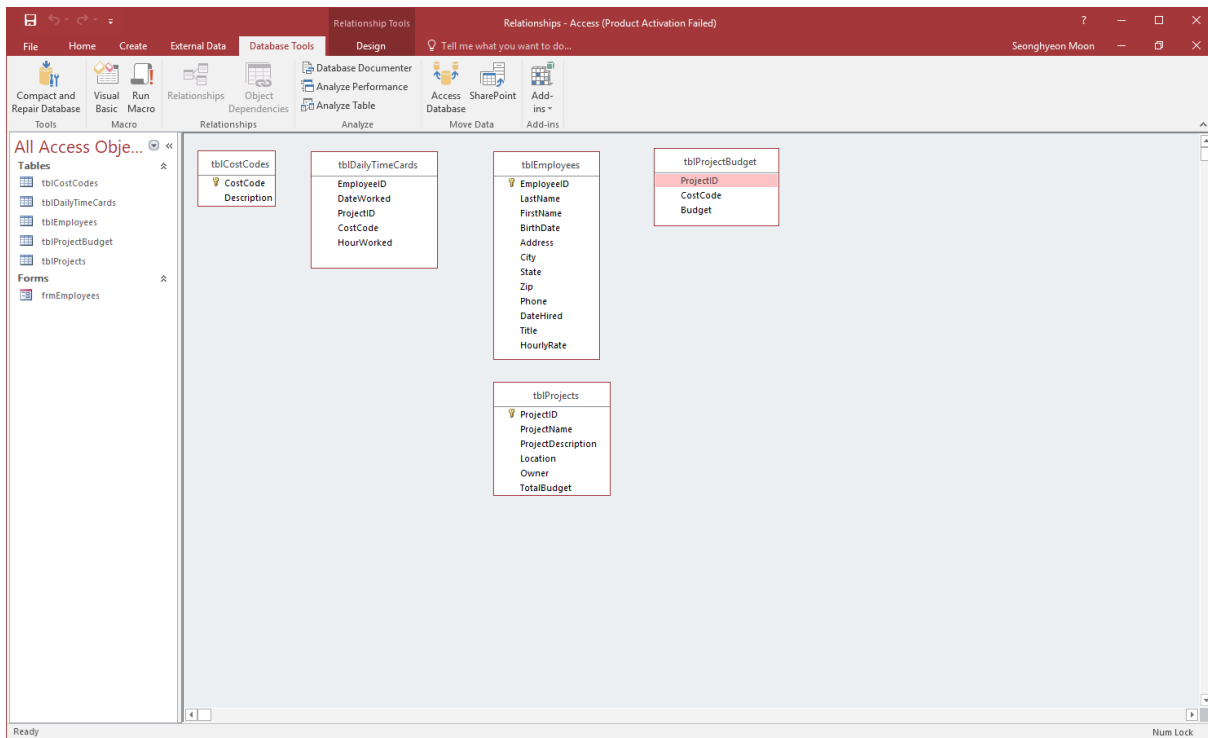
#### **SUBMISSION:**

- Submit the database file. Make sure that you include the homework number, your ID and name, and the file number in the file names to facilitate identification (e.g. "HW1\_2015-21288\_Seonghyeon.mdb")

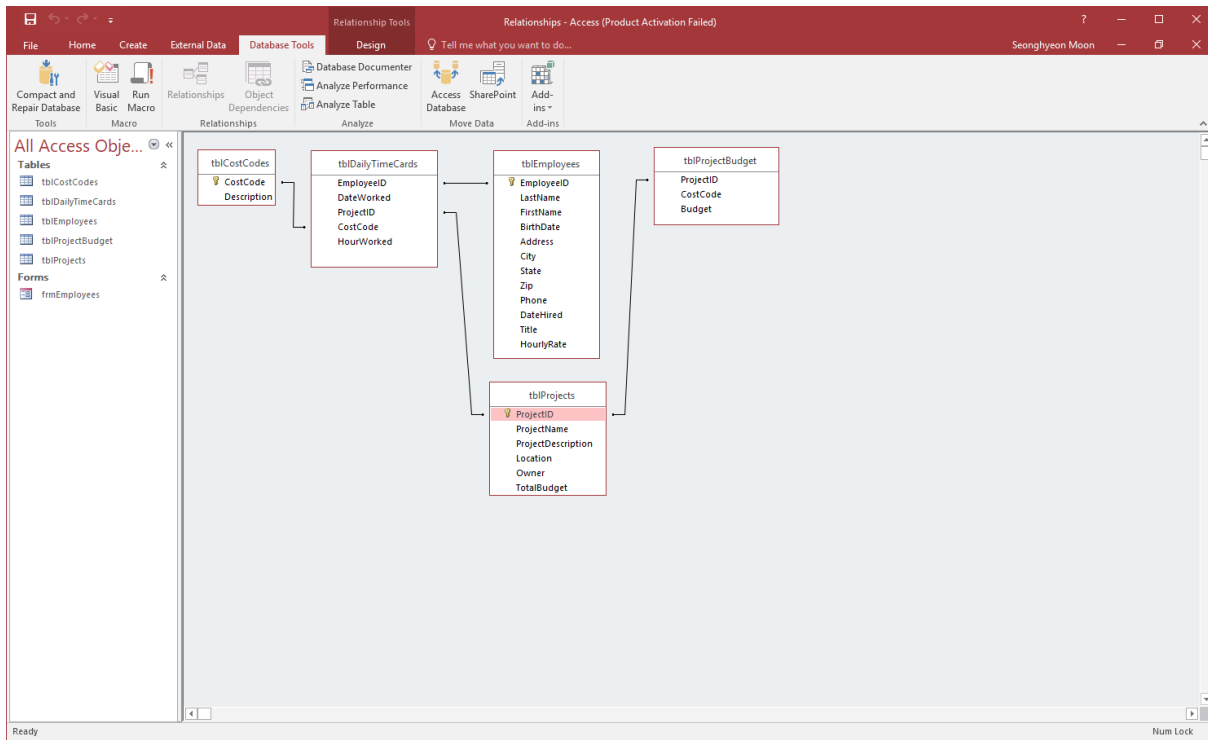
1. Open the “Lab2 Start.mdb” database. It already has these tables.



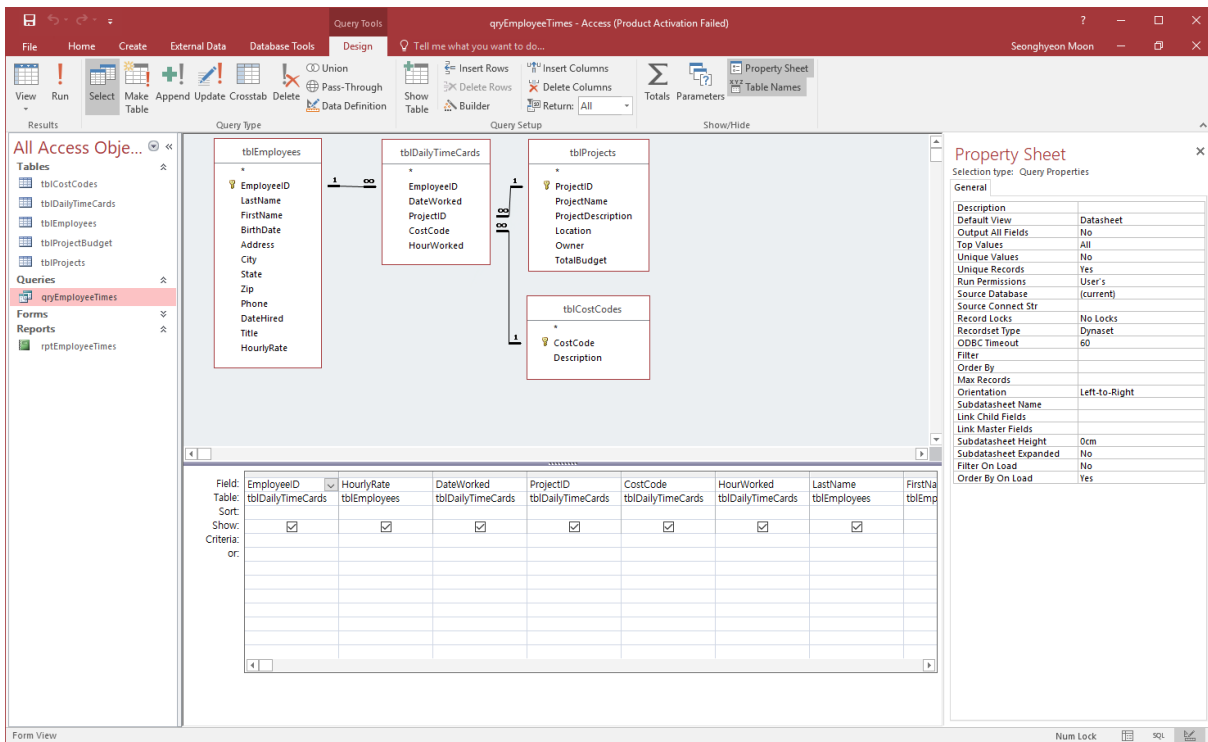
2. Go to “Tools → Relationships”.



### 3. Add these relationships.

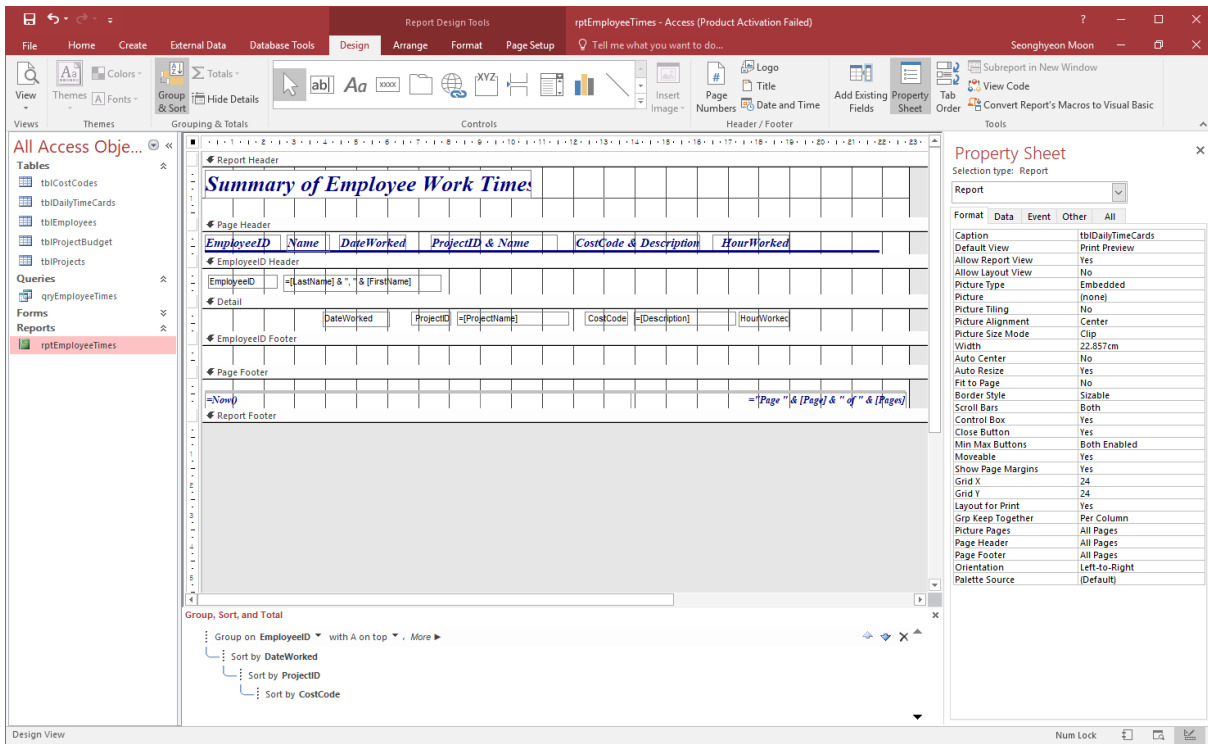


### 4. Create the query “qryEmployeeTimes”.

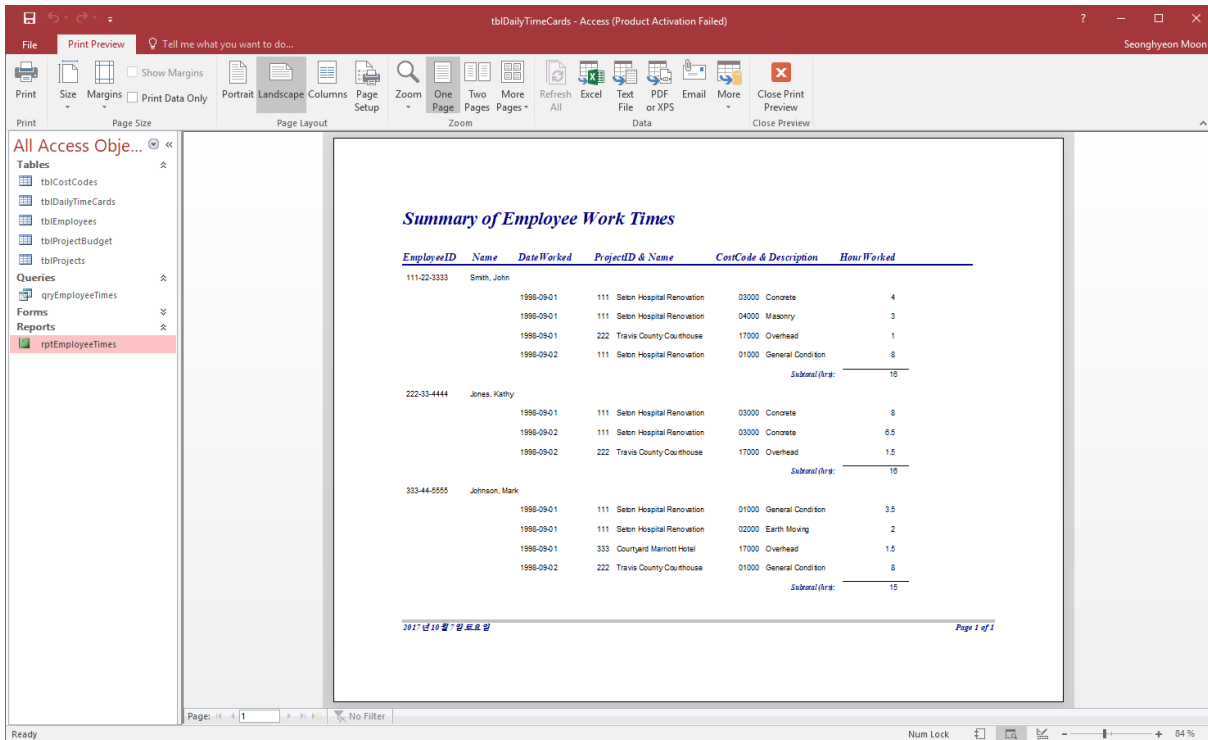




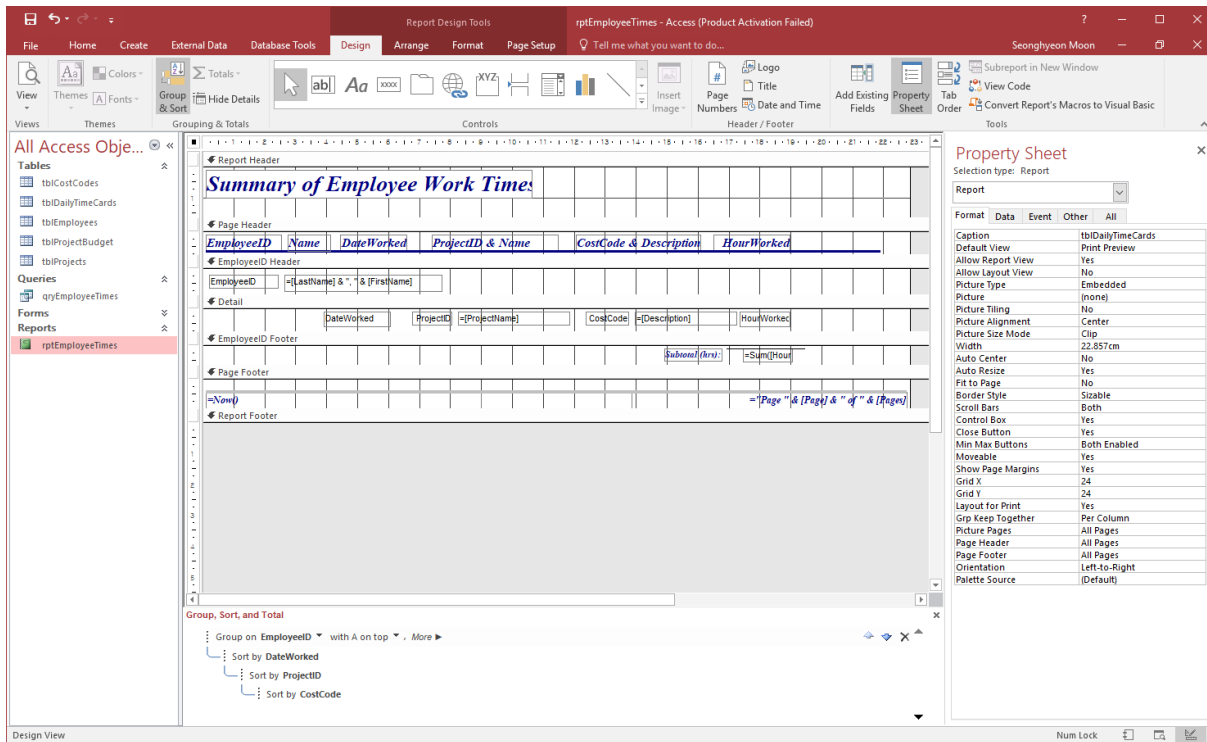
7. Design view for the previous report.



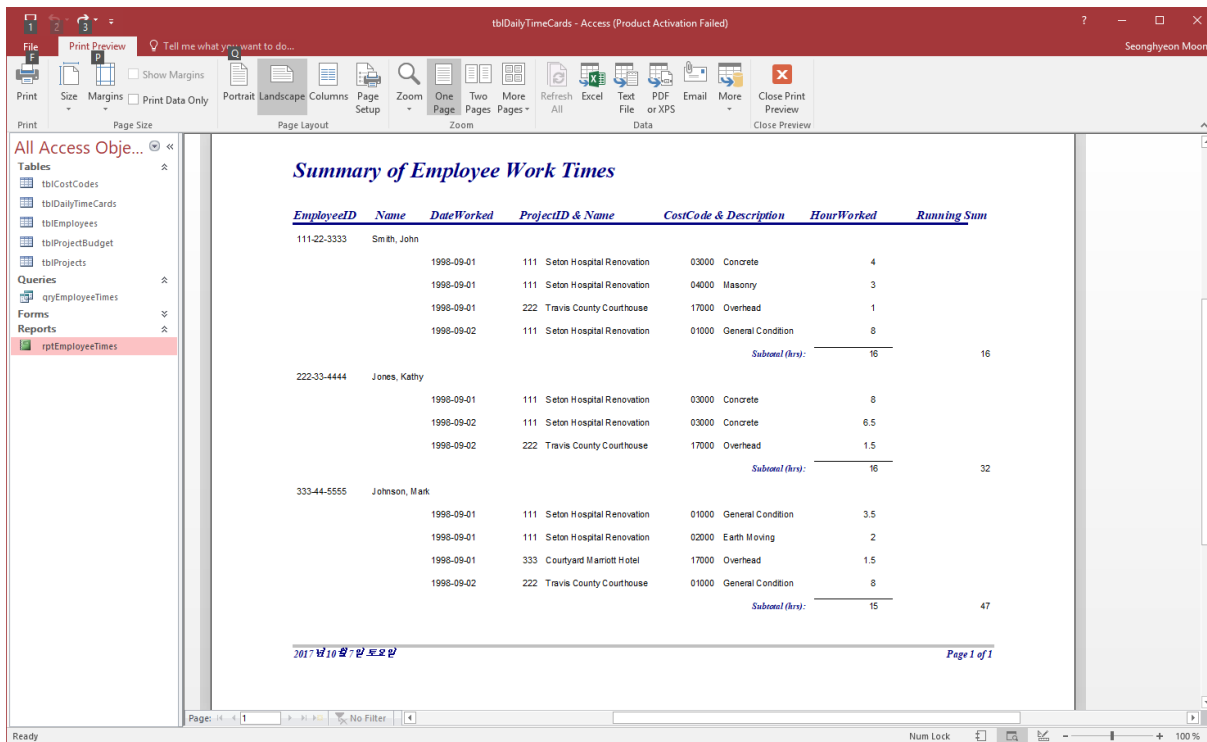
8. Change the report. The design view for the changed report is presented on the next page.



9. Design view for the item 8 report.



10. Change the report. The design view for the changed report is presented on the next page.



## 11. Design view for the item 10 report.

The screenshot shows the Microsoft Access Design View for the 'Summary of Employee Work Times' report. The report is structured as follows:

- Report Header:** Contains the title 'Summary of Employee Work Times'.
- Page Header:** Contains the column headers: EmployeeID, Name, DateWorked, ProjectID & Name, CostCode & Description, HourWorked, and Running Sum.
- EmployeeID Header:** Contains a text box for the EmployeeID field, with the expression: `=LastName & ", " & FirstName`.
- Detail:** Contains the main data rows for the report.
- EmployeeID Footer:** Contains a text box for the EmployeeID field, with the expression: `=Sum(Hour)`.
- Page Footer:** Contains a text box for the page number, with the expression: `=Page & " of " & Pages`.
- Report Footer:** Contains a text box for the total hours, with the expression: `=Sum(Hour)`.

The Property Sheet on the right shows various formatting options for the report, including Caption, Default View, Allow Report View, Allow Layout View, Picture Type, Picture Tiling, Picture Alignment, Picture Size Mode, Width, Auto Center, Auto Resize, Fit to Page, Border Style, Scroll Bars, Control Box, Close Button, Min Max Buttons, Moveable, Show Page Margins, Grid X, Grid Y, Layout for Print, Grp Keep Together, Picture Pages, Page Header, Page Footer, Orientation, and Palette Source.

## 12. Change the report. The design view for the changed report is presented on the next page.

The screenshot shows the Microsoft Access Print Preview for the 'Summary of Employee Work Times' report. The report is displayed in Print Preview mode, showing the data for three employees: John Smith, Kathy Jones, and Mark Johnson. The data is grouped by EmployeeID and sorted by DateWorked. The report shows the total hours worked and the total cost for each employee.

EmployeeID	Name	DateWorked	ProjectID & Name	CostCode & Description	HourWorked	Running Sum
111-22-3333	Smith, John	1998-09-01	111 Seton Hospital Renovation	03000 Concrete	4	
		1998-09-01	111 Seton Hospital Renovation	04000 Masonry	3	
		1998-09-01	222 Travis County Courthouse	17000 Overhead	1	
		1998-09-02	111 Seton Hospital Renovation	01000 General Condition	8	
					<i>Subtotal (hrs):</i>	16
						\$160.00
						16
222-33-4444	Jones, Kathy	1998-09-01	111 Seton Hospital Renovation	03000 Concrete	8	
		1998-09-02	111 Seton Hospital Renovation	03000 Concrete	6.5	
		1998-09-02	222 Travis County Courthouse	17000 Overhead	1.5	
						\$400.00
						32
333-44-5555	Johnson, Mark	1998-09-01	111 Seton Hospital Renovation	01000 General Condition	3.5	
		1998-09-01	111 Seton Hospital Renovation	02000 Earth Moving	2	
		1998-09-01	333 Courtyard Marriott Hotel	17000 Overhead	1.5	
		1998-09-02	222 Travis County Courthouse	01000 General Condition	8	
					<i>Subtotal (hrs):</i>	15
						\$360.00
						47

The report footer shows the page number: 2017년 10월 10일 10월 10일 Page 1 of 1.

### 13. Design view for the item 12 report.

The screenshot displays the Microsoft Access Report Design Tools interface for a report titled "Summary of Employee Work Times". The report is structured as follows:

- Report Header:** Contains the title "Summary of Employee Work Times".
- Page Header:** Contains the following fields: EmployeeID, Name, DateWorked, ProjectID, & Name, CostCode & Description, HourWorked, and Running Sum.
- EmployeeID Header:** Contains the field EmployeeID with the expression: `=LastName] & ", " & [FirstName]`.
- Detail:** Contains the following fields: DateWorked, ProjectID, =(ProjectName), CostCode, =(Description), HourWorked.
- EmployeeID Footer:** Contains the field EmployeeID with the expression: `=Sum([Hour])`.
- Page Footer:** Contains the field Page with the expression: `=Page " & [Page] & " of " & [Pages]`.
- Report Footer:** Contains the field Page with the expression: `=Page " & [Page] & " of " & [Pages]`.

The left-hand pane shows the "All Access Objects" list, including Tables (tblCostCodes, tblDailyTimeCards, tblEmployees, tblProjectBudget, tblProjects), Queries (qryEmployeeTimes), Forms, and Reports (rptEmployeeTimes). The right-hand pane shows the "Property Sheet" for the report, with various settings such as Caption, Default View, Allow Report View, and Orientation.

At the bottom of the design view, the "Group, Sort, and Total" pane shows the following configuration:

- Group on EmployeeID with A on top, More ▶
- Sort by DateWorked
- Sort by ProjectID
- Sort by CostCode