Homework – Glade Manual, Chapter 8

1. Importing Data: Convert Excel file into Access Table (p. 8-1 to 8-4)
    - (similar to converting text file to Excel worksheet in Exercise 5 (Thyroxine problem) in Chapter 5)
    - Copy Ch8_Ex (call it Ch8_Ex-v1) and open
    - External Data tab → Import & Link group → click on Excel icon
    - Browse: Navigate to folder where AllQuakes.xlsx file was saved on download [click OK]
    - Click through the three [NEXT>] (defaults are fine) and [Finish] and [Close]
    - ALLQUAKE and ALLQUAKE$_ImportErrors added to Tables Objects

2. Setting Relationships between the Tables (p. 8-5 to 8-8)
    - Open F_E table (in Ch8_Ex-v2)
    - Enter Design View
    - Make sure Code field is selected
    - Click on Primary Key (in Tools group inside Table Tools Design tab)
    - Exit by clicking on x in top right corner
    - Repeat for Mercalli table
    - Click on Database Tools tab, followed by Relationships icon (in Relationships group)
    - Drag FlynnEng field in ALLQUAKE table onto Code field in F_E table
    - Click on Join Type.. in Edit Relationships window
    - Click on OK in Join Properties window (default selection)
    - Click Enforce referential integrity check box [Create]
    - Repeat: Intensity field in ALLQUAKES table to Intensity field in Mercalli table

3. A Simple Report Demonstrating a Table Join (p. 8-8 to 8-10)
    - Create a Report using the Report Wizard
    - Select: Year, Magnitude from ALLQUAKES table
    - Select: Region from F-E table [FINISH]
    - Close this Report
    - Open ALLQUAKES table and enter Design View
    - Change Data Type for mb field to Number; same for Ms field

4. Some Calculated Fields (p. 8-10 to 8-14)
    - Create a Query using Query Design
    - Only Add ALLQUAKE Table
    - Create a two column Query, both are Expressions
    - Column 1: need DateSerial function
    - <<Year>> select Year field in ALLQUAKES Table
    - <<month>> select first two digits from Date field in ALLQUAKES Table
    - <<day>> select last two digits from Date field in ALLQUAKES Table
    - Change the name of Expr1 to Date
    - Close the Query window and name it Calculated
    - Reopen Calculated Query
    - Column 2: build this formula: WeekdayName(Weekday([Date]))

5. Some Queries and Reports (p. 8-14 to 8-17)
    - First: insert ID field from ALLQUAKE Table into Calculated Query by dragging ID field (from ALLQUAKE Table) to first field in Calculated Query
    - Create a Query using Query Design
    - Select and Add: ALLQUAKE, F_E, Mercalli Tables, Calculated Query
    - Examine join properties by double-clicking on the lines
    - Select fields: Weekday, Date (from Calculated), Magnitude (from ALLQUAKE), Effect (from Mercalli), Region (from F_E), also FlynnEng (from ALLQUAKE) , but don't show
    - Magnitude field: Descending order, Criteria: >7.5
    - Close Query and name it "LargeQuakes"
    - Create a Report using Report Wizard
    - Select Query: LargeQuakes in Tables/Queries
    - Select all Available fields [NEXT>]
    - Select: by F_E [NEXT>]
    - Skip: grouping levels [NEXT>]
    - Skip: sort [NEXT>]
    - Select: stepped Layout [NEXT>]
    - Name Report: LargeQuakes

6. Earthquake Magnitude Distribution over Depths (p. 8-17 to 8-20)
    - Create a Query using Query Design
    - Select and Add: ALLQUAKE Table only
    - Select field: Depth; set Criteria: Is Not Null
    - Build expression: if(Depth <= 15, “Surface”, if(Depth <= 40, “Shallow”, if(Depth <= 100, “Medium”,”Deep”))); call this field “Depth_Level”
    - Select field: Magnitude; set Criteria: Is Not Null
    - Name the Query: Depth_Ranges (there should be 2362 records)
    - Create a Report using Report Design
    - Chart Wizard: Click on Chart icon in Controls group and drag to Detail
    - Choose Depth_Ranges Query [NEXT>]
    - Select fields: Magnitude, Depth_Level (in that order) [NEXT>]
    - Select: 3-D column chart (second in top row) [NEXT>]
    - Change SumOfMagnitude to CountOfMagnitude; drag Magnitude tile onto Series box [FINISH]

7. Figure 8.21 (last two lines of p. 8-20 to 8-21)
    - Re-open Depth_Ranges Query
    - Add Expression in the fourth field: if(Magnitude < 3, “< 3”, if(Magnitude < 4, “3 to 4”, if(Magnitude < 5, “4 to 5”, if(Magnitude < 6, “5 to 6”, if(Magnitude < 7, “6 to 7”, “7 and greater”))))); call this field Magnitude_Level
    - Create a Report using Report Design
    - Chart Wizard: Click on Chart icon in Controls group and drag to Detail
    - Choose Depth_Ranges Query [NEXT>]
    - Select fields: Magnitude_Level, Depth_Level (in that order) [NEXT>]
    - Select: 3-D column chart (second in top row) [NEXT>]
    - Move Magnitude_Level to “Y-axis box”, “Depth_level to “X-axis box”
    - Drag Magnitude_Level tile onto “Series” box [FINISH]
    - Summary: we only changed Magnitude to Magnitude_Level in the previous chart