1. Create a blank database and name it "lab-ex".

    [File] ➜ [New…] ➜ [Blank databases…]

2. Create the following tables.

    (Use [Create tabe in Design view] & [Create table by entering data].)

    a) table name: employees

        field name: employee_id   (text, 5)

                         name   (text, 30)

                         title   (text, 10)

                         tel   (text, 8)

                         department   (text, 20)

    b) table name: projects

        field name: project_id   (text, 4)

                         name   (text, 20)

                         description   (text, 255)

                         start_date   (date)

                         end_date   (date)

                         duration   (number)

                         supervised_by   (text, 5)

    c) table name: tasks

        field name: task_id   (text, 7)

                         project_id   (text, 4)

                         description   (text, 50)

                         estimated_costs (number)

    d) table name: task_assigned

        field name: task_id   (text, 7)

                         employee_id   (text, 5)

                         manday_required (number)

    We first use [Create table by entering data] to create the [employees] table and then use [Create tabe in Design view] to create the rest.

Note: *Although it is easy to create a table through entering data directly to the file, we have to correct the table settings after the table has just been created.*

3. Import data to the database file, lab-ex.mdb, from an Excel spreadsheet file (lab_ex.xls).

    (Right click on empty space of database window for lab-ex. From the pull down menu choose [Import…] and locate the pointer to where the Excel file stored. Choose appropriate worksheet to be imported. Just a reminder, we can only import one worksheet a time. So, we repeat the procedures three times to import data for all four tables.)

Note: *In fact, we can import data from an Excel sheet to a new table but we need to correct the settings after the table has been created. Also, before we can import from an Excel sheet, make sure that the Excel sheet is in a proper format, i.e. the first row must be the name of the field.*

4. Try using some functions provided by Access, such as [Filter by Form], [Sorting Ascending], [Sort Descending], etc.

5. Switch [Objects] to [Forms] and use [Create form by using wizard] to create a simple form for input data.

    Select all available fields of [Table: employees] and use [Columnar] as the layout of the form.

6. Try to create a report by using the wizard for [Projects].

    Choose fields: [project_id], [start_date], [end_date], [duration] and [supervised_by] for the report. In addition, use [supervised_by] to group the data.

7. Open [Relationships] to create the relationships between tables.

8. *Home work* – Construct an ER-Diagram based on the relationships which have been created in the Microsoft Access database file.

    *Please submit your work in the next lab session.