# SQL – Assignment 1

For the following requests, pack your answers into the zip file Assignment1\_AccountName.zip then handle to the evaluator via email ([XYZ@fsoft.com.vn](mailto:XYZ@fsoft.com.vn)).

Barem: Q1-30%, Q2.1-40%, Q2.2-30%

**Question 1:**

Consider the following relations for a database that manage book information in library. The information include: Book title, Author, Publisher, Category and Book format.

Note:

* Primary Key is mark post-fix with #
* ISBN stands for “International Standard Book Number”

BOOK\_TITLE (ISBN\_Number#, Title, PublisherID, PublishedDate, BookFormat, Pages, Price)

BOOK\_AUTHOR (ISBN\_Number#, AuthorID#)

AUTHOR (AuthorID#, AuthorFirstName, AuthorLastName)

PUBLISHER (PublisherID#, PublisherName)

BOOK\_CATEGORY (ISBN\_Number#, CategoryID#)

CATEGORY (CategoryID#, CategoryDescription)

BOOK\_FORMAT (BookFormat#, FormatDescription)

Draw a relational schema diagram specifying the foreign keys for this schema.

**Question 2: <<Option>>**

Given the project table with following initial structure

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Code** | **Project Title** | **Project Manager** | **Project Budget** | **Employee No.** | **Employee Name** | **Department No.** | **Department Name** | **Hourly Rate** |
| PC010 | Pensions System | M Phillips | 24500 | S10001 | A Smith | L004 | IT | 22.00 |
| PC010 | Pensions System | M Phillips | 24500 | S10030 | L Jones | L023 | Pensions | 18.50 |
| PC010 | Pensions System | M Phillips | 24500 | S21010 | P Lewis | L004 | IT | 21.00 |
| PC045 | Salaries System | H Martin | 17400 | S10010 | B Jones | L004 | IT | 21.75 |
| PC045 | Salaries System | H Martin | 17400 | S10001 | A Smith | L004 | IT | 18.00 |
| PC045 | Salaries System | H Martin | 17400 | S31002 | T Gilbert | L028 | Database | 25.50 |
| PC045 | Salaries System | H Martin | 17400 | S13210 | W Richards | L008 | Salary | 17.00 |
| PC064 | HR System | K Lewis | 12250 | S31002 | T Gilbert | L028 | Database | 23.25 |
| PC064 | HR System | K Lewis | 12250 | S21010 | P Lewis | L004 | IT | 17.50 |
| PC064 | HR System | K Lewis | 12250 | S10034 | B James | L009 | HR | 16.50 |

Please:

1. Normalize that table structure to the **first**, **second** and **third** normalization forms
2. Draw relational schema diagram for the tables defined in the third normalization form above