# Project – Milestone #1
# Database Design for University Library Management System

## Introduction

In this semester, you will develop a simple database application for the university library management. As a first step, you should analyze the requirements of the library, and design your database schema which represents them completely.

## Tasks to Do

1. Describe the requirements of the university library management system from the user's perspective.

2. Construct an E-R diagram for a database that models the university library management system. Use various types of entities/relationships. You should describe why you choose the design for them.

3. Turn your E-R diagram into a normalized relational database design – a set of relational table schemas that have appropriate attributes and primary/foreign keys. Your schemas must be in 3NF. Construct a schema diagram for your database, and write SQL statements which create tables and integrity constraints in Tibero RDBMS. The statements should also create integrity constraints. You should describe the reduction and normalization processes from the E-R diagram to the relational table schemas.

## The Scope of the Requirements

You should choose the scope of the requirements appropriately.
1. It should result in a database having about a dozen tables which are interrelated.
2. It should include the following basic features of the library management system:
- Add/remove a resource (e.g., book, journal, media(CD/DVD))
- Add/remove a user (e.g., undergraduate/graduate student, faculty)
- User login
- Search a resource
- Display a status of a resource
- Borrow/return a resource
- List all resources which a user borrowed

## Submit

1. A document file containing the following:
- Requirement statements
- An E-R diagram and descriptions
- An schema diagram and descriptions of its reduction and normalization processes

2. A SQL file to create tables and integrity constraints in Tibero RDBMS

Please submit the files in .zip format with the filename [proj1_student-id].zip via e-mail:
- To: twlee@idb.snu.ac.kr
- Title: [DB2013s_proj1] your student-id, name
- Due date: 23:59pm, 26th April (late penalty: 10% per a day, no credit after a week)