

## PROJECT SPECIFICATIONS

**Project Name:** aDB: A single-user prototype DBMS  
**Project Description:** The project would have predefined set of minimum features that needs to be accomplished. The DBMS is meant to be used by one user only at a time.  
**Deadline:** Last week of classes. An initial presentation will be done on a predefined date.  
**Groupings:** The number of students per group will be determined by the number of students taking the course. Around 3-4 members per group is expected. Students with the same background will be distributed into different groups.  
**PL:** Choice of the student

**Project Summary:** A **single-user** prototype DBMS will be finished and presented by students at the last week of classes as a requirement for the course. The following features should be observed:

Only DML (INSERT, SELECT, and DELETE) statements will be considered. Query clauses will **NOT** be implemented except for WHERE clause with one condition only (no concatenation of conditions via OR and AND; negation conditions also not supported). SQL syntax will be followed. You are not allowed to create your own grammar and syntax.

To further simplify, all queries are auto-commit. This note is crucial as this will affect how INSERT and DELETE are implemented.

DDL and DCL will **NOT** be implemented.

A predefined schema will be used across different groups. The schema is:

STUDENT(StudNo, StudentName, Birthday, Degree, Major, UnitsEarned)  
STUDENTHISTORY(StudNo, Description, Action, DateFiled, DateResolved)  
COURSE(CNo, CTitle, CDesc, NoOfUnits, HasLab, SemOffered)  
COURSEOFFERING(Semester, AcadYear, CNo, Section, Time, MaxStud)  
STUDCOURSE(StudNo, CNo, Semester, AcadYear)

The following data types must be assumed and observed:

- o All columns are of string type assuming a maximum value of 50 characters **except** for UnitsEarned, NoOfUnits, HasLab, MaxStud which are of integer type.
- o Birthday follows the format YYYY-MM-DD. Example: 2014-07-01
- o Time follows the format HH:MM military time. Example: 14:01
- o StudNo follows the format YYYY-XXXXX. Example: 2008-12345
- o SemOffered and Semester are enumerated types with possible values 1st, 2nd and Sum

A peer evaluation will be implemented. 20% of your grade will come from your group mates while the remaining 80% from the project.

Collaboration is highly encouraged but be aware that academic dishonesty, in any form, is highly discouraged.

Your project will be tested by your instructor using a dataset of at least 100,000 entries per table. Your DBMS must be able to import external data (csv).

A GUI is encouraged instead of a CLI.

Other details not mentioned here? Ask your instructor or contact him at [rrecario@up.edu.ph](mailto:rrecario@up.edu.ph).