Guidelines for Project Submission

1. Include a cover page (at the center of the page) in the following format and with the following information:

System : (e.g. Human Resource Information System)

Project Stage : Analysis, Design, and Implementation

Date :

Class & Section :
Developer :

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3. Use ONLY white regular letter-sized bond paper (standard 8.5" x 11") with text on one side only. Use at least 12 point text, either Garamond or Times New Roman font. Margin should be 1 inch for all sides.

4. For all diagrams, use any graphics package such as Visio, ABC Flowchart, etc. (As long as your output is computer generated – no handwritten, penciled charts please!)

Table of Contents (1 separate page)

I. EXECUTIVE SUMMARY

At least 2 pages discussion

II. REQUIREMENTS SPECIFICATION

2.1 Existing Information Systems

Current manual or computerized systems and what data they handle
Problems encountered in existing systems

2.2 The Proposed System

A description of the system/database effort you plan to develop
The objectives of the proposed system
General range of processing or functions that will be handled by the system
Give a general range of the number of transactions processed on a daily or monthly basis, a range of the number of instances of given entities (i.e. the number of employees if a personnel information system is considered)

2.3 Scope

Scope of the system/database effort
What areas, departments, offices are covered and other boundaries of the system
Users of the system
Constraints and Limitations of the system.

III. CONCEPTUAL DATABASE DESIGN

2.1 Identified User Views

Identify data requirements: input documents, output reports, and display screens (you may use secondary sources – like documentation or report or displays taken from the Internet).

Enclosed a SAMPLE COPY or screenshot of documentation/report/display for analysis. You should have 8-10 user views; at least 4 inputs and at least 4 outputs. (User views may be input documents, display screens, output reports, or other operating documents required by the system.)

2.2 Conceptual Data Model

Perform the steps in creating a conceptual data model
Show entities, relationships and their cardinalities, attributes and the chosen primary key. If possible, remove repeating groups/multi-valued attributes and make into a separate entity.
MODEL as a whole. Merge all individual user view ERDs into a single ERD

IV. LOGICAL DATABASE DESIGN

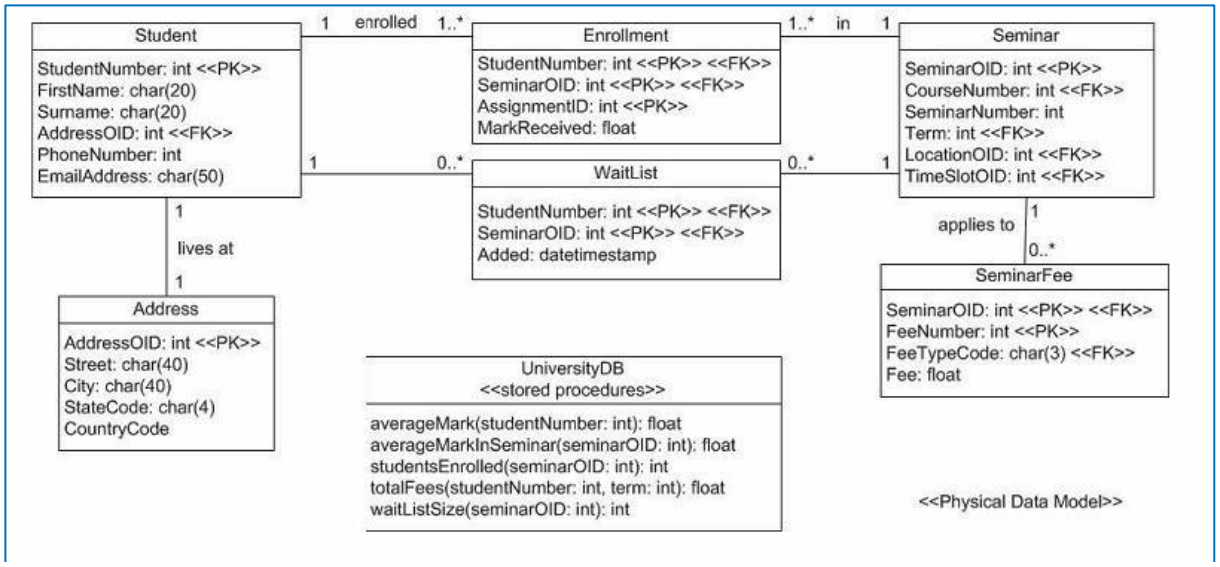
4.1 Logical Data Model

Perform the steps in creating a logical data model.
MODEL as a whole or a single ERD.
Include a detailed explanation about any changes made from the Conceptual data model to arrive with your final logical data model.

V. PHYSICAL DATABASE DESIGN

4.1 Physical Data Model

Perform the steps in creating a physical data model. Example:



4.2 Final Data Dictionary

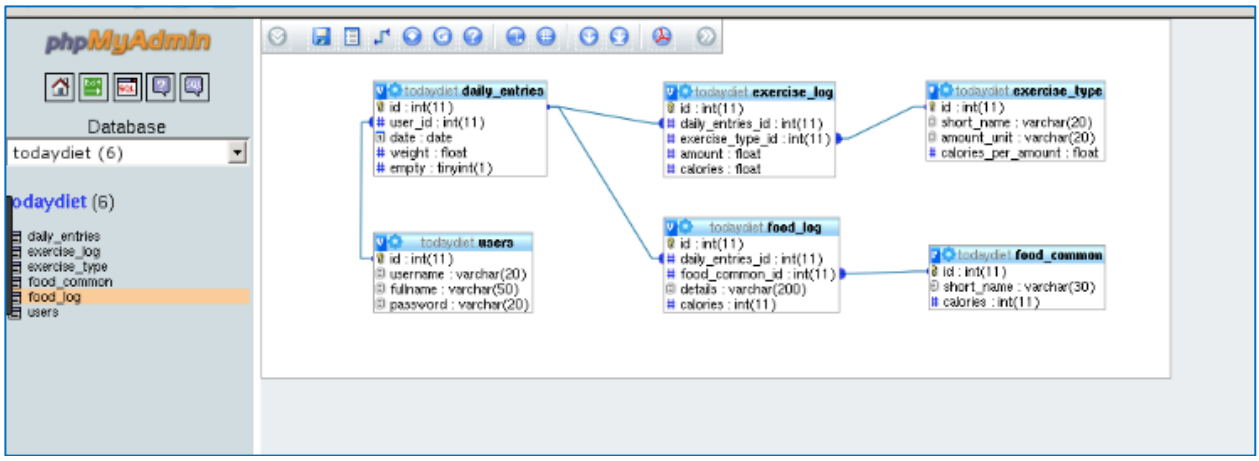
Should be based in your final logical data model. Example:

Entity Name (table name): LOAN CARD

Attribute	Description	Type	Size	Null	Unique	Part_of_PK	Foreign Key	FK_Relation
Issue_Date	Loan Card Issue Date	Date		No		No	No	
No_Bkloan	No. of Books on Loan	integer	10	Yes	No	No	No	
Total_Fine	Total Due Fine	money	1000	Yes	No	No	No	
No_Bkdue	No. of Due Books	integer		Yes	No	No	No	
MaxBooks	Max. No. of Books allowed for loan	Integer		Yes	No	No	No	
LoanPeriod	No. of Loan Days	integer		Yes	No	No	No	
Lcard_No	Lcard_No	integer		No	Yes	Yes	No	
Lib_id	ID number	integer		No	Yes	No	Yes	PATRON

4.3 Final Normalized Tables

Underline primary keys, and show foreign keys with dashed underlines. Sample screenshot:



4.4 Integrity Constraints

Determine the referential integrity constraints of your database systems.
Show affected tables and describe how you will enforce referential integrity for each.
Example:

❖ **PATRON & LOAN CARD - Cascade Constraints**

- Every Patron must have his/her own Loan Card.
- Once a PATRON record is being deleted or updated, his/her LOAN CARD will follow.

❖ **BOOK HOLDING & BOOK - Cascade Constraints**

- For every BOOK HOLDING record, there should be a corresponding BOOK record to it.
- Once a BOOK HOLDING record is being deleted or updated, BOOK and CARD CATALOG record will follow.

4.5 Triggering Operations

Present the triggering operations in your MySQL database. See sample below.

User Rule	Patron Record must be existing
Event	Update
Entity Name	PATRON
Condition	If patron record does not exist
Action	Reject Update Action

User Rule	There must be no existing loan transaction
Event	Delete
Entity Name	PATRON
Condition	If Bkloan != 0, Bkdue = !0, Total_fine != 0 from the LOANCARD entity
Action	Reject Action & Prompt User

4.6 Views

Describe the views used in your MySQL database by including a short description about the view, codes, and sample screenshot of the output (at least 1 row per view).

Description: [short description here]
Code: [code here]
Screenshot: [paste screenshot here]

4.7 Stored Procedures and Functions

Describe the stored procedures or functions by including a short description and codes of the procedure.

Description: [short description here]
Code: [code here]