

<Insert Company and/or Project Name here!>

Data Base Design

Prepared by:

Date:

I agree that the content of this Data Base Design reflects the system design specifications for the
?????? System.

<Insert Client=s Name>

Date

<Insert Project Manager=s Name>

Date

Data Base Design

Table of Contents

1. Table of Contents
2. Design Overall Description (5 Marks)

This section should contain at minimum the following:

- A one page summary of the entire document, which would include: A general statement of the overall project/situation, and a general description of what is included in this document, etc...

3. Proposed System: (20 Marks)
 - i. Objectives
 - ii. Requirements
 - iii. Constraints
 - iv. Assumptions

Section comments:

- Objectives of the situation as well as the design of this data base.
- Requirements of the system should be stated in detailed here without getting into specific listing of data element of screens/reports, but the element should be describe enough so we could have a good idea of what is on the screen/report.
- Constraints/Assumption: Could be at DB levels / process flow levels / etc.

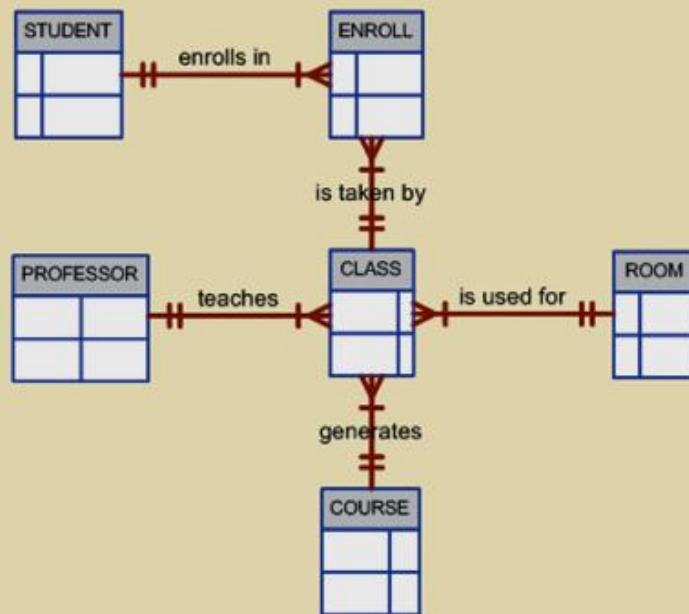
4. Data Base Design Specifications
i. Final ER Diagram (15 Marks)

Example:

Section comments:

- Your ERD needs to show cardinality as the sample her illustrates.
- No attributes should be listed. This is only a conceptual representation model.
- It should take into account all input and output requirements.
- Do not forget associative entities when required.
- Relationship descriptions should be short but precise.

FIGURE 2.10 Conceptual model for Tiny College

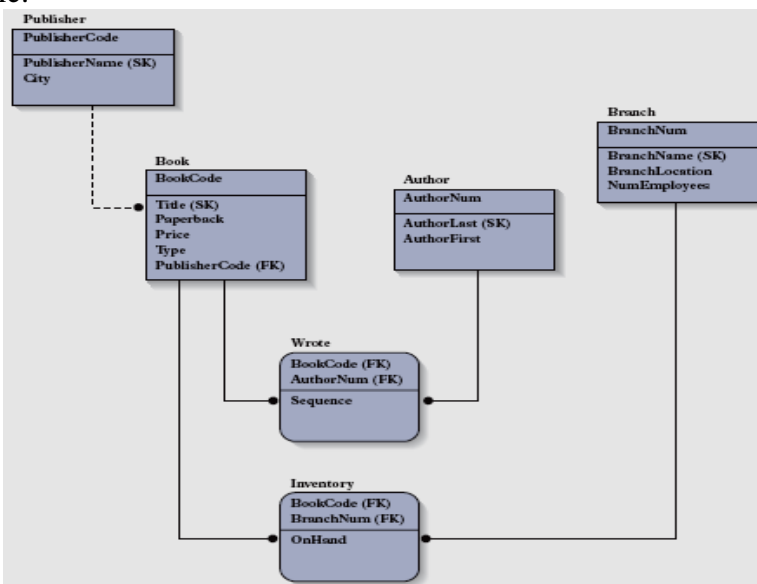


ii. Final Cumulative View in 3NF (20 Marks)

Example:

Section comments:

- Tables should be constructed gradually, as you review requirements.
- Outputs should be considered first followed by inputs with regards to requirements.
- Attributes should be identified with (PK), (FK), (SK), (AK)..
- Be careful to not miss attributes stated or visible in the requirements sections.
- Cardinality can be shown, but the relationship description would not be.
- **Normalize to 3NF** as you build but do a final check when you have your final cumulative user view.
- No need to include dependency diagrams but if you do please place in appendix.



- iii. Data Base Design Language (DBDL) Documentation of all your tables
Example: (15 Marks)

```
Employee (EmployeeNum, LastName, FirstName, Street, City, State, Zip,  
WageRate, SocSecNum, DepartmentNum)  
AK SocSecNum  
SK LastName  
FK DepartmentNum → Department
```

Section comments:

- List all DBDL after the final cumulative user view of your table structure.
- Each table should be individually listed as the sample above illustrates.
- Key linkage to other table is required to document the relationship lines found in your ERD and User View.
- Only the PK is underlined.

Table Record Structure Documentation(Data Element Name, Data type, Length, Decimals, Key, Source, Security, Report Format, etc.) (5 Marks)

Table Record Structure Documentation Sample

Attribute	Data Type	Length	Decimals	Key	Source	Security	Format
Lastname	Character	12	0	SK	Application Form	None	String
Price	Numeric	10	2	-	Inventory Catalogue	None	\$ 99,999.99

Section comments:

- Please list this section by table name, hence a record structure table as above for each table in your User View diagram.
- Security is to be a Y/N field simply identifying data elements that would/should have extra security on them.
- Length is data size in table and Format is for visual displaying of data.

- iv. Physical considerations on: Performance, Security, Backup/Recovery, Integrity.

Section comments:

- One to two pages on consideration of the DB physically.
- I would expect the bulk of your comments to be on security and backup/recovery from learning you did in Architecture and Security courses.

5. References

Document Business Format.. (20 Marks)

This section should contain at minimum the following:

- This document is to read as one report not an array of answers to chapter questions. You are to consolidate information from the case study and package the content within the above template as a report.
- Spelling and overall format of content is expected to be of an acceptable industry standard.
- Appropriate title page should be included.
- Client signoff page should be included.
- Table of content should be included (auto generated by Word)
- Reference page on any resources used. (if applicable)
- Appendix section of all supportive documents referenced within the document body.

Clarity

- Report content is expected to flow from one area/section to the other.