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Project Design Report Guidelines

In the project planning report you have chosen a data management problem and proposed a solution. Now, you need to (1) gather your database requirements in the form of business rules, (2) design a fully-attributed relational data model, and (3) make sure your design report is understandable by people who are not familiar with this data management problem.

Your deliverable for this phrase is an analysis and design report using the following template (12-point Arial or Times New Roman, 1-inch margins on all sides and 1.5 spaced).

**Section I**: title page

This page should include your name and the title of your project.

**Section II**: a one-page project summary

This summary is evolved from your proposed solution. The summary should provide enough background knowledge for any reader to understand the work scenario of your project.

**Section III**: entity and attribute table (see the following example table)

This section should include a table that lists all entities and their attributes, as well as necessary explanations of what data each entity stores. For foreign keys and associative entities, make sure to explain the relationships they establish. Please also provide explanations for the attributes that are hard to understand based on common sense. No need to provide explanations for easy-to-understand attributes like IDs, names, and addresses.

|  |  |
| --- | --- |
| Data object | Explanation |
| Entity I | What data does it store? |
| Primary key | Why can it uniquely identify each instance? |
| Other attribute I | If it is not easy-to-understand, explain what it means, and give an example of its value |
| Other attribute II | If its name is easily understandable using common sense, no need to describe it, e.g. “transactionDate” or “studentID” |
| Foreign key | Which primary key does it associate with? What relationship does this foreign key establish? Describe the business rules that define the degree and cardinality of this relationship |
| Entity II | … |
| Primary key | … |
| Other attribute I | … |
| … | … |

**Section IV**: relational data model

This section should include a relational data model (created by Visio). This model should conform to 3NF, with all primary keys identified, cardinality of relationships marked, and foreign key associated.

**Section V**: business rules that are not represented in the above data model

In this section please list all business rules that are not represented in the above data model. For example, “the finish of the furniture can only be one of the three values: maple, birch, and cherry.”

**Section VI**: major data questions? [Note: this section is new for this semester, therefore the sample report did not include this section]

What are the major data questions that the users want to answer using your database? Have your database design captured all data that are necessary to answer these questions? For example, for an online shopping database, the business owner wants to know who the customers are, what products they bought, what is the annual revenue for each product, etc.; the customers may want to know what product is the best seller in its category, whether there is promotion, etc.

**Note:**

The report is due by 1pm Oct 6, 2014. Please post your project title and summary to the “Project Design Report” thread in BlackBoard with the entire report in the attachment. Please also bring a paper copy to class. The paper copy will be graded and returned to you.