

Memo: # 0 (Bike and Electric Auto Rental)

DBDS

DataBase Design Specialists, Inc.

"We are always 5NF."

To: Hampshire, Jason NN:15, DA
From: Design Team Leader
Subject: New project, communications, and deliverables
Date: October 11, 2021

New Project:

We have just won the contract to design and implement a prototype database for a company that has a bicycle and electric automobile rental business – the **Bike and Electric Auto Rental (BEAR)** project. You have been selected as the DA (Data Architect) for this project. The motivation for this project is to keep a record of what is going on within the rental business.

You will be receiving a series of memos to detail the project as information becomes available. Since we are off-site, much of the information will be gathered through electronic mail communication with the principals in the project.

There are many sites that rent these vehicles. Three sites are to be part of the test data: Downtown site (DS), Airport Site (AS) and Suburban Site (SS).

Communications:

The BEAR contact person is Bob Bureaucrat. He has just joined the BEAR project as project director. He has selected Sam Supervisor, the Suburban Site manager, as an additional contact person. Remember, these folks are our customers and know the details of the project; however, they are not database experts so do not ask them technical (DBMS) questions. We have covered this ideas in our training project.

You may communicate with Bob Bureaucrat and Sam Supervisor using electronic mail (**actually Canvas messages**). Send your messages destined for Bob or Sam to me (with their name added as a prefix to the subject line) and I will forward the mail to them and their responses back to you. They have asked that you limit each piece of mail to **one question** of 10 lines or less. They have also asked that you limit your questions to 1 or 2 per week, as they are both working on other projects. Also, Bob Bureaucrat is out of the office much of the time. If he is not in the office, questions will be returned. He will try to let us know in advance when he will be available.

I would suggest that you number your questions or use descriptive subject headings on the mail messages so you can correlate the answer with the question. I am sure they will use the REPLY function to answer your questions.

As an aid to the customer, I have supplied some predefined answer files and have installed them on their computers. Some of the responses are:

The question is not relevant to the BEAR effort.
The question is too complex, please revise it.
I do not understand the question. I am confused by ...
Bob Bureaucrat is out of the office. Please resubmit later.

Deliverables:

We are going to use the methodology described in our design meetings. You are to supply the usual deliverables at the end of the project, i.e.,

- List of (charts of) functional dependencies ✓
- A relational database design (5NF) - a Logical Data Model (LDM), and a corresponding Physical Data Model (PDM) ✓
- A prototype of the relational database design (RDD) generated by ERWin using SQL Server 2019 ✓
- Results, from the prototype database, for typical queries (questions) using the customer supplied data

Your technical report should coordinate the problem statement and the items listed above. Please prepare your reports in machine-readable form (as a Word docx file). I will use portions of your work in my final report to the customer. In addition, please keep an organized record of your development efforts. Periodically I will have to ask you for the current status so that I can present interim reports to the customer.

Completion Date:

The project completion date will be announced later. The first deliverable will be requested in a few days.

