Case Study 1- **A Database Project in a Small Company**

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Q.1) “This case describes the development of a database system used to track and analyze press comments by experts on the information technology industry.”

Q.2) “The job of an industry analyst (Columbus, 2004) is to interpret goings-on in a particular field to nonexperts, advising them on where the field is going and which vendors, products, or services are most likely to suit a particular user need.” The analyst also helps by reporting to the

Q.3) “It specialized in advising ICT vendors about the impact of industry analysts on their business, and on how to work with them most constructively.”

Q.4) “The firm’s initial offerings included the multiclient studies originally done by Ackerman, workshops at which vendor analyst relations professionals could learn the elements of their profession, and custom consulting services.”

Q.5) “While he was used to seeing analysts quoted frequently in the trade press, for the first time he realized that listing and organizing their comments could provide insight into their influence areas. He opened his laptop and created a spreadsheet to capture information about these quotes. It had these columns: ”

• Analyst Name

• Job Title

• Firm

• Location (city; also state if U.S., country if not U.S.)

• Topic of Article (a few words indicating what the article overall was about)

• Article Title

• Publication Name

• Date of Issue, Volume, Number (as applicable)

• Writer(s)

• Point(s) Made (summary of what the analyst was quoted as saying)

• Vendor(s) Mentioned

• Entered by (initials, for the possibility that others might enter quotes at some time)

• Date Entered

Q.6) After he had collected this information, he brought this chart up, which at this point had over a hundred entries, in a meeting and the group he was working with also helped him come up with more elements like attitude gained from the article. They also decided that the way he was collecting and organizing data was bad because he was not able to properly search and use his data because Excel at the time only had a text search feature.

Q.7) “As a result, it was decided to develop a “real” database for quotation capture and analysis. Since Ackerman had more background in this area than anyone else then in the small firm, though he was far from an expert, he offered to develop the system, with the others testing it and providing feedback.”

“An informal version of prototyping was used for development. Ackerman bypassed conventional methods for requirements determination. Instead, he intuited system requirements from his experience with the Excel spreadsheet and from colleagues’ comments. Along similar “quick and dirty” development lines, no functional or design specifications were written. Ackerman developed a “first cut” system, populated it with quotes imported from his spreadsheet, and sent it to colleagues to try out, review, and comment.”

Q.8) “First normal form (1NF) is violated because the vendors mentioned in each quote were listed in a repeating field within the Quote record, not in a separate table. This was done as a practical implementation matter. It was considered unlikely that any quote would ever mention more than 10 vendors. The wasted space of leaving room for 10, even if none were mentioned, was negligible.”

“The Quote table is also not in second normal form (2NF) because there can be several quotes in one article. The bibliographic data of the article, combined with the analyst’s ID no., is a candidate key for the quote record. Information such as the name of the article’s author and the content summary of the article depend only on part of this candidate key: the bibliographic data.”

Q.9) “Despite these design deficiencies, the database system worked well enough for one person to enter data.”

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Q.10) “Clients wanted online access to the database. Downloading it once a month was not an acceptable option. There was concern that lack of online access would lead to clients dropping the service.” This was the most important because for the company, if the users or clients became dissatisfied, they could intern lose the clients business and not have enough revenue to continue. So in turn they began making a SQL-database and put their current server online so that their clients could access it.