

Data Modeling Exercise: Modeling Business Rules

Create a model in 3rd normal form that enforces as many of these business rules as possible:

1. Employees may order business cards, but orders must be captured online. Online orders must:
 - a. Be approved by that employee's immediate manager before they can be processed.
 - b. Contain a valid cost center number for either the employee's department or for one of the projects to which the employee is assigned.
 - c. Be approved by the project manager if a project cost center number is used.
 - d. Not exceed 100 cards in a 6 month period for any one employee without the express permission of their manager. Employees in the Sales and Marketing Department are exempt from this restriction.
2. All business cards must include the company name and address.
3. Employees may include up to 3 phone numbers, identified by type (phone, fax, cell, mobile, pager, administrative assistant, etc.)
4. Employees may include an e-mail address, but if they do, it must be their company e-mail address.
5. The company has multiple company approved slogans. The employee may optionally choose one or more of the approved slogans to be included on their business card.
6. The employee may also select one or more of the company logos to appear on their card.
7. Some logos are tied to a particular slogan and may only be included if the related slogan is also included.