Thesis Title	A Natural Language-Based Integrity Rules Generator for Relational Database Environment
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ABSTRACT

The design of a database is a process which aims at producing data structures which has minimum redundancy thus increase correctness and reduce the chance to have data inconsistency. Database design methodologies such as the Normalization process, the Entity-Relationships modelling and the NIAM information analysis methodology all lead to the same design result. However, they lack proper user interfaces which ease the design process and improve the communication between the designers and users. Integrity constraints definitions which are definition of validation rules are normally not available in most systems. They are often design in the form of database triggers and stored procedures which are hard to define and maintain.

This thesis presents an automatic integrity constraint definition and enforcement system which is based on the NIAM methodology and the ONF algorithm. The system accepts formal natural language instructions which are easy to understand. The users do not have to know any database design methodologies. They simply define relationships between data items and integrity rules in descriptive language. The system will generate 5NF relational database schemata together with validation rules in SQL, declarative rules and stored procedures.