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Nota di contenuto	1. Introduction -- ; 2. Information Systems -- ; 2.1. Types of Information Systems -- ; 2.2. Types of Incomplete Information Systems -- ; 2.3. Simple Query Language -- ; 2.3.1. Standard Interpretation of Queries in Complete Information Systems -- ; 2.3.2. Standard Interpretation of Queries in Incomplete Information Systems -- ; 2.4. Rules -- ; 2.5. Distributed Information Systems -- ; 2.6. Decision Systems -- ; 2.7. Partially Incomplete Information Systems -- ; 2.8. Extracting Classification Rules -- ; 2.8.1. Attribute Dependency and Coverings -- ; 2.8.2. System LERS -- ; 2.8.3. Algorithm for Finding the Set of All Coverings (LEM1) -- ; 2.8.4. Algorithm LEM2 -- ; 2.8.5. Algorithm for Extracting Rules from Incomplete -- ; Decision System (ERID) -- ; 2.9. Chase Algorithms -- ; 2.9.1. Tableaux Systems and Chase -- ; 2.9.2. Handling Incomplete Values Using CHASE1 Algorithm -- ; 2.9.3. Handling Incomplete Values Using CHASE2 Algorithm -- ; X Contents -- ; 3. ActionRules -- ; 3.1. Main Assumptions -- ; 3.2. Action Rules from Classification Rules -- ; 3.2.1. System DEAR -- ; 3.2.2. System DEAR2 -- ; 3.3. E-action Rules -- ; 3.3.1. ARAS Algorithm. -- ; 3.4. Action Rules Tightly Coupled Framework -- ; 3.5. Cost and Feasibility. -- ; 3.6. Association Action Rules -- ; 3.6.1. Frequent Action Sets -- ; 3.7. Representative Association Action Rules -- ; 3.8. Simple Association Action Rules -- ; 3.9. Action Reducts -- ; 3.9.1. Experiments and Testing -- ; 3.10. Meta-action -- ; 3.10.1.

We are surrounded by data, numerical, categorical and otherwise, which must to be analyzed and processed to convert it into information that instructs, answers or aids understanding and decision making. Data analysts in many disciplines such as business, education or medicine, are frequently asked to analyze new data sets which are often composed of numerous tables possessing different properties. They try to find completely new correlations between attributes and show new possibilities for users. Action rules mining discusses some of data mining and knowledge discovery principles and then describe representative concepts, methods and algorithms connected with action. The author introduces the formal definition of action rule, notion of a simple association action rule and a representative action rule, the cost of association action rule, and gives a strategy how to construct simple association action rules of a lowest cost. A new approach for generating action rules from datasets with numerical attributes by incorporating a tree classifier and a pruning step based on meta-actions is also presented. In this book we can find fundamental concepts necessary for designing, using and implementing action rules as well. Detailed algorithms are provided with necessary explanation and illustrative examples.
