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Nota di contenuto	Intro -- Foreword -- Preface -- Motivation -- Content -- Software -- Teaching and Further Study -- Web Page and Exercises -- Acknowledgments -- Contents -- Logic for Programming: A Perspective -- Logic and Language -- Logic and Mathematics -- Logic with Computers -- Logic for Computer Science -- Logic and Software Development -- Further Reading -- Part I The Foundations -- 1 Syntax and Semantics -- 1.1 Abstract Syntax -- 1.2 Structural Induction -- 1.3 Semantics -- 1.4 Type Systems -- 1.5 The Semantics of Typed Languages -- 2 The Language of Logic -- 2.1 First-Order Logic -- 2.2 Informal Interpretation -- 2.3 Well-Formed Terms and Formulas -- 2.4 Propositional Logic -- 2.5 Free and Bound Variables -- 2.6 Formal Semantics -- 2.7 Validity, Logical Consequence, and Logical Equivalence -- 3 The Art of Reasoning -- 3.1 Reasoning and Proofs -- 3.2 Inference Rules and Proof Trees -- 3.3 Reasoning in First Order Logic -- 3.4 Reasoning by Induction -- 4 Building Models -- 4.1 Axioms and Definitions -- 4.2 The Theory of Sets -- 4.3 Products and Sums -- 4.4 Set-Theoretic Functions and Relations -- 4.5 More Type Constructions -- 4.6 Implicit Definitions and Function Specifications -- Exercises -- Further Reading -- 5 Recursion -- 5.1 Recursive Definitions -- 5.2 Primitive Recursion -- 5.3 Least and Greatest Fixed Points -- 5.4 Defining Continuous Functions -- 5.5 Inductive and Coinductive Relation Definitions -- 5.6 Rule-Oriented Inductive and

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