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   Sommario/riassunto The Pernambuco School on Software Engineering (PSSE) 2007 was the
                       second in a series of events devoted to the study of advanced computer
                       science and to the promotion of international scientific collaboration.
                       The main theme in 2007 was testing. Testing is nowadays a key activity
                       for assuring software quality. The summer school and its proceedings
                       were intended to give a detailed tutorial introduction to the scientific
                       basis of this activity and its state of the art. These proceedings record
                       the contributions from the invited lecturers. Each of the chapters is the
                       result of a thorough revision of the initial notes provided to the
                       participants of the school. The revision was inspired by the synergy
                       generated by the opportunity for the lecturers to present and discuss
                       their work among themselves and with the school's attendees. The
                       editors have tried to produce a coherent view of the topic by
                       harmonizing these contributions, smoothing out differences in notation
                       and approach, and providing links between the lectures. We apologize

to the authors for any errors introduced by our extensive editing. Although the chapters are linked in several ways, each one is sufficiently self-contained to be read in isolation. Nevertheless, Chap. 1 should be read first by those interested in an introduction to testing. Chapter 1 introduces the terminology adopted in this book. It also provides an overview of the testing process, and of the types (functional, structural, and so on)and dimensions (unit, integration, and soon) of the testing activity. The main strategies employed in the central activity of test selection are also discussed. Most of the material presented in this introductory chapter is addressed in more depth in the following chapters.