Regression Testing In Software Engineering

From the basics to the most advanced quality of service (QoS) concepts, this all encompassing, first-of-its-kind book offers an in-depth understanding of the latest technical issues raised by the emergence of new types, classes and qualities of Internet services. The book provides end-to-end QoS guidance for real time multimedia communications over the Internet. It offers you a multiplicity of hands-on examples and simulation script support, and shows you where and when it is preferable to use these techniques for QoS support in networks and Internet traffic with widely varying characteristics and demand profiles. This practical resource discusses key standards and protocols, including real-time transport, resource reservation, and integrated and differentiated service models, policy based management, and mobile/wireless QoS. The book features numerous examples, simulation results and graphs that illustrate important concepts, and pseudo codes are used to explain algorithms. Case studies, based on freely available Linux/FreeBSD systems, are presented to show you how to build networks supporting Quality of Service. Online support material including presentation foils, lab exercises and additional exercises are available to text adopters.

The proceedings of the September 1994 conference comprise technical papers in sessions on software regression testing, characterizing and improving maintenance processes, reverse engineering, software reengineering and evolution in practice, pattern matching for program understanding, applying maint

This book constitutes the refereed proceedings of the 10th International Conference on Fundamental Approaches to Software Engineering, FASE 2007, held in Braga, Portugal in March/April 2007 as part of ETAPS 2007, the Joint European Conferences on Theory and Practice of Software. It covers evolution and agents, model driven development, tool demonstrations, distributed systems, specification, services, testing, analysis, and design.

For over 20 years, Software Engineering: A Practitioner's Approach has been the best selling guide to software engineering for students and industry professionals alike. The sixth edition continues to lead the way in software engineering. A new Part 4 on Web Engineering presents a complete engineering approach for the analysis, design, and testing of Web Applications, increasingly important for today's students. Additionally, the UML coverage has been enhanced and signficantly increased in this new edition. The pedagogy has also been improved in the new edition to include sidebars. They provide information on relevant softare tools, specific work flow for specific kinds of projects, and additional information on various topics. Additionally, Pressman provides a running case study called "Safe Home" throughout the book, which provides the application of software engineering to an industry project. New additions to the book also include chapters on the Agile Process Models, Requirements Engineering, and Design Engineering. The book has been completely updated and contains hundreds of new references to software tools that address all important topics in the book. The ancillary material for the book includes an expansion of the case study, which illustrates it with UML diagrams. The On-Line Learning Center includes resources for both instructors and students such as checklists, 700 categorized web references, Powerpoints, a test bank, and a software engineering library-containing over 500 software engineering papers.TAKEAWY HERE IS THE FOLLOWING:1. AGILE PROCESS METHODS ARE COVERED EARLY IN CH. 42. NEW PART ON WEB APPLICATIONS --5 CHAPTERS

Professionals in the interdisciplinary field of computer science focus on the design, operation, and maintenance of computational systems and software. Methodologies and tools of engineering are utilized alongside computer applications to develop efficient and precise information databases. Computer Systems and Software Engineering: Concepts, Methodologies, Tools, and Applications is a comprehensive reference source for the latest

scholarly material on trends, techniques, and uses of various technology applications and examines the benefits and challenges of these computational developments. Highlighting a range of pertinent topics such as utility computing, computer security, and information systems applications, this multi-volume book is ideally designed for academicians, researchers, students, web designers, software developers, and practitioners interested in computer systems and software engineering.

A superior primer on software testing and quality assurance, from integration to execution and automation This important new work fills the pressing need for a user-friendly text that aims to provide software engineers, software quality professionals, software developers, and students with the fundamental developments in testing theory and common testing practices. Software Testing and Quality Assurance: Theory and Practice equips readers with a solid understanding of: Practices that support the production of quality software Software testing techniques Life-cycle models for requirements, defects, test cases, and test results Process models for units, integration, system, and acceptance testing How to build test teams, including recruiting and retaining test engineers Quality Models, Capability Maturity Model, Testing Maturity Model, and Test Process Improvement Model Expertly balancing theory with practice, and complemented with an abundance of pedagogical tools, including test questions, examples, teaching suggestions, and chapter summaries, this book is a valuable, self-contained tool for professionals and an ideal introductory text for courses in software testing, quality assurance, and software engineering.

This volume provides an overview of current work in software engineering techniques that can enhance the quality of software. The chapters of this volume, organized by key topic area, create an agenda for the IFIP Working Conference on Software Engineering Techniques, SET 2006. The seven sections of the volume address the following areas: software architectures, modeling, project management, software quality, analysis and verification methods, data management, and software maintenance.

Our 1000+ Software Engineering Questions and Answers focuses on all areas of Software Engineering subject covering 100+ topics in Software Engineering. These topics are chosen from a collection of most authoritative and best reference books on Software Engineering. One should spend 1 hour daily for 15 days to learn and assimilate Software Engineering comprehensively. This way of systematic learning will prepare anyone easily towards Software Engineering interviews, online tests, Examinations and Certifications. Highlights- Ø 1000+ Basic and Hard Core High level Multiple Choice Questions & Answers in Software Engineering with Explanations. Ø Prepare anyone easily towards Software Engineering interviews, online tests, Government Examinations and certifications. Ø Every MCQ set focuses on a specific topic in Software Engineering. Ø Specially designed for IBPS IT, SBI IT, RRB IT, GATE CSE, UGC NET CS, PROGRAMMER and other IT & Computer Science related Exams. Who should Practice these Software Engineering Questions? Ø Anyone wishing to sharpen their skills on Software Engineering. Ø Anyone preparing for aptitude test in Software Engineering. Ø Anyone preparing for interviews (campus/off-campus walk-in interviews) Ø Anyone preparing for entrance examinations and other competitive examinations. Ø All – Experienced, Freshers and Students.

Knowledge existing in modern information systems usually comes from many sources and is mapped in many ways. There is a real need for representing "knowledge pieces" as rather universal objects that should fit to multi-purpose a-ing systems. According to great number of information system's tasks, knowledge representation is more or less detailed (e.g. some level of its granularity is - sumed). The main goal of this paper is to present chosen aspects of expressing granularity of knowledge implemented in intelligent systems. One

of the main r- sons of granularity phenomena is diversification of knowledge sources, therefore the next section is devoted to this issue. 2. Heterogeneous Knowledge as a Source for Intelligent Systems Knowledge, the main element of so-called intelligent applications and systems, is very often heterogeneous. This heterogeneity concerns the origin of knowledge, its sources as well as its final forms of presentation. In this section the selected c- teria of knowledge differentiation will be presented, in the context of potential sources of knowledge acquisition. In Fig. 1 an environment of intelligent systems is shown, divided into different knowledge sources for the system. Fig. 1. Potential knowledge sources for intelligent information/reasoning system. Source: own elaboration based on (Mach, 2007) p. 24.

An important new object-oriented testing approach that gives you greater reusability, improved software quality, and reduced development costs Integration testing, black box testing, regression testing, requirements testing . . . all of these can be highly effective approaches when applied to conventional top-down or structured software development. But object-oriented developers are discovering that the procedural approach to testing is not sufficient when applied to the kind of software they develop. As author Shel Siegel clearly demonstrates in this groundbreaking book, object-oriented software development requires a radically different testing approach, one that incorporates a new set of strategies, testing procedures customized for objects and components, and an integrated, specialized object-oriented testing infrastructure. Now, in Object Oriented Software Testing, he specifies the OO testing system, its objects, environment, tools, and procedures, and shows you how to use them to optimize your object-oriented development efforts. The hierarchical approach described in this book is the first testing scheme designed specifically to address the unique goals and concerns inherent to object-oriented development projects. In case after case it yields nothing less than remarkable results-greater reusability, higher software quality, and consistently lower development costs than those incurred during structured applications development. The first book to explore one of the most important developments in software engineering in recent years, Object Oriented Software Testing is an important addition to your software development library.
This book is for enthusiasts in Machine Learning applied to software testing, Regression testing, combinatorial testing, Internet of Things (IoT) Operating System (OS) test designers and implementer and everyone who is interested in Software Engineering.
The volume includes a set of selected papers extended and revised from the I2009 Pacific-Asia Conference on Knowledge Engineering and Software Engineering (KESE 2009) was held on December 19~ 20, 2009, Shenzhen, China. Volume 1 is to provide a forum for researchers, educators, engineers, and government officials involved in the general areas of Computer and Software Engineering to disseminate their latest research results and exchange views on the future research directions of these fields. 140 high-quality papers are

included in the volume. Each paper has been peer-reviewed by at least 2 program committee members and selected by the volume editor Prof. Yanwen Wu. On behalf of this volume, we would like to express our sincere appreciation to all of authors and referees for their efforts reviewing the papers. Hoping you can find lots of profound research ideas and results on the related fields of Computer and Software Engineering.

"This book discusses the current state of test automation practices, as it includes chapters related to software test automation and its validity and applicability in different domains"--Provided by publisher.

This is the digital version of the printed book (Copyright © 2004). Testing is not a phase. Software developers should not simply throw software over the wall to test engineers when the developers have finished coding. A coordinated program of peer reviews and testing not only supplements a good software development process, it supports it. A good testing life cycle begins during the requirements elucidation phase of software development, and concludes when the product is ready to install or ship following a successful system test. Nevertheless, there is no one true way to test software; the best one can hope for is to possess a formal testing process that fits the needs of the testers as well as those of the organization and its customers. A formal test plan is more than an early step in the software testing process—it's a vital part of your software development life cycle. This book presents a series of tasks to help you develop a formal testing process model, as well as the inputs and outputs associated with each task. These tasks include: review of program plans development of the formal test plan creation of test documentation (test design, test cases, test software, and test procedures) acquisition of automated testing tools test execution updating the test documentation tailoring the model for projects of all sizes Whether you are an experienced test engineer looking for ways to improve your testing process, a new test engineer hoping to learn how to perform a good testing process, a newly assigned test manager or team leader who needs to learn more about testing, or a process improvement leader, this book will help you maximize your effectiveness.

Software testing is basically a process of comparing the actual results with the expected outcome. The main aim of testing is simple, to check the correct functionality of a system and deliver quality product to the customers. For this purpose of testing the test cases plays an important role which will help us to compare actual results with the expected one. Test case prioritization is basically a process of arranging these test cases in such a way that the fault detection rate will increase. The test case prioritization is the technique of Regression testing in which test cases are prioritized according to the changes which are done in the project. Regression testing is normally being used to retest the component of a system that verifies that defects are removed or not from the effected part of the software after modifications. If this fault detection rate will increase during the regression testing, then the feedback provided to the developer is faster and

hence the rate of production and delivery of software will also increase. Effective Software Testing explores fifty critically important best practices, pitfalls, and solutions. Gleaned from the author's extensive practical experience, these concrete items will enable quality assurance professionals and test managers to immediately enhance their understanding and skills, avoid costly mistakes, and implement a state-of-the-art testing program. This book places special emphasis on the integration of testing into all phases of the software development life cycle--from requirements definition to design and final coding. The fifty lessons provided here focus on the key aspects of software testing: test planning, design, documentation, execution, managing the testing team, unit testing, automated testing, nonfunctional testing, and more. You will learn to: Base testing efforts on a prioritized feature schedule Estimate test preparation and execution Define the testing team roles and responsibilities Design test procedures as soon as requirements are available Derive effective test cases from requirements Avoid constraints and detailed data elements in test procedures Make unit-test execution part of the build process Use logging to increase system testability Test automated test tools on an application prototype Automate regression tests whenever possible Avoid sole reliance on capture/playback Conduct performance testing with production-sized databases Tailor usability tests to the intended audience Isolate the test environment from the development environment Implement a defect tracking life cycle Throughout the book, numerous real-world case studies and concrete examples illustrate the successful application of these important principles and techniques. Effective Software Testing provides ready access to the expertise and advice of one of the world's foremost software quality and testing authorities. 0201794292B12032002 CSSE2014 proceeding tends to collect the most up-to-date, comprehensive, and worldwide state-of-art knowledge on Computer Science and Software Engineering. All the accepted papers have been submitted to strict peer-review by 2–4 expert referees, and selected based on originality, significance and clarity for the purpose of the conference. The conference program is extremely rich, profound and featuring high-impact presentations of selected papers and additional late-breaking contributions. We sincerely hope that the conference would not only show the participants a broad overview of the latest research results on related fields, but also provide them with a significant platform for academic connection and exchange. The Technical Program Committee members have been working very hard to meet the deadline of review. The final conference program consists of 126 papers divided into 4 sessions. This book constitutes the proceedings of the 13th International Symposium on Search-Based Software Engineering, SSBSE 2021, which was held in Bari, Italy, during October 11-12, 2021. The 9 full and 2 short papers included in this volume were carefully reviewed and selected from 19 submissions. The papers deal with novel ideas and applications of search-based software engineering, focusing on engineering challenges and the application of automated approaches and optimization techniques from AI and machine learning research. This book constitutes the refereed proceedings of the Fifth International Symposium on Search-Based Software Engineering, SSBSE 2013, held in St. Petersburg, Russia. The 14 revised full papers, 6 revised short papers, and 6 papers of the graduate track presented together with 2 keynotes, 2 challenge track papers and 1 tutorial paper were carefully reviewed and selected from 50 initial submissions. Search Based Software Engineering (SBSE) studies the

application of meta-heuristic optimization techniques to various software engineering problems, ranging from requirements engineering to software testing and maintenance.

Regression Testing in Era of Internet of Things and Machine LearningLulu.comRegression Testing in Era of Internet of Things and Machine Learning: a Practical Approach

This book comprises the refereed proceedings of the International Conferences, ASEA and DRBC 2012, held in conjunction with GST 2012 on Jeju Island, Korea, in November/December 2012. The papers presented were carefully reviewed and selected from numerous submissions and focus on the various aspects of advanced software engineering and its applications, and disaster recovery and business continuity.

Engineering tasks are supposed to achieve defined goals under certain project constraints. Example goals of software engineering tasks include achieving a certain functionality together with some level of reliability or performance. Example constraints of software engineering tasks include budget and time limitations or experience limitations of the developers at hand. Planning of an engineering project requires the selection of techniques, methods and tools suited to achieve stated goals under given project constraints. This assumes sufficient knowledge regarding the process-product relationships (or effects) of candidate techniques, methods and tools. Planning of software projects suffers greatly from lack of knowledge regarding the process-product relationships of candidate techniques, methods and tools. Especially in the area of testing a project planner is confronted with an abundance of testing techniques, but very little knowledge regarding their effects under varying project conditions. This book offers a novel approach to addressing this problem: First, based on a comprehensive initial characterization scheme (see chapter 7) an overview of existing testing techniques and their effects under varying conditions is provided to guide the selection of testing approaches. Second, the optimisation of this knowledge base is suggested based on experience from experts, real projects and scientific experiments (chapters 8, 9, and 10). This book is of equal interest to practitioners, researchers and students. Practitioners interested in identifying ways to organize their company-specific knowledge about testing could start with the schema provided in this book, and optimise it further by applying similar strategies as offered in chapters 8 and 9.

As future generation information technology (FGIT) becomes specialized and fr- mented, it is easy to lose sight that many topics in FGIT have common threads and, because of this, advances in one discipline may be transmitted to others. Presentation of recent results obtained in different disciplines encourages this interchange for the advancement of FGIT as a whole. Of particular interest are hybrid solutions that c- bine ideas taken from multiple disciplines in order to achieve something more signi- cant than the sum of the individual parts. Through such hybrid philosophy, a new principle can be discovered, which has the propensity to propagate throughout mul- faceted disciplines. FGIT 2009 was the first mega-conference that attempted to follow the above idea of hybridization in FGIT in a form of multiple events related to particular disciplines of IT, conducted by separate scientific committees, but coordinated in order to expose the most important contributions. It included the following international conferences: Advanced Software Engineering and Its Applications (ASEA), Bio-Science and Bio- Technology (BSBT), Control and Automation (CA), Database Theory and Appli- tion (DTA), Disaster Recovery and Business Continuity (DRBC; published indepe- ently), Future Generation Communication and Networking (FGCN) that was c- bined with Advanced Communication and Networking (ACN), Grid and Distributed Computing (GDC), Multimedia, Computer Graphics and Broadcasting (MulGraB), Security Technology (SecTech), Signal Processing, Image Processing and Pattern Recognition (SIP), and u- and e-Service, Science and Technology (UNESST).

The book re-visits Regression testing in the light of Internet of Things Operating System testing. Book explores Machine Learning concepts applied to generic Regression test data.

The book is for Software Engineering enthusiasts, test Architects who want to explore applying Machine Learning concepts to testing. As a case study, to demonstrate Internet of Things Operating System testing one of the Operating System is taken as case study. Regression test suites are written from scratch and re-engineered using leading test design tool. Automation of test script generation is explored. To demonstrate the Machine Learning concepts applied to testing Weka is used.

This book features high-quality research papers presented at the International Conference on Advanced Computing and Intelligent Engineering (ICACIE 2017). It includes sections describing technical advances in the fields of advanced computing and intelligent engineering, which are based on the presented articles. Intended for postgraduate students and researchers working in the discipline of computer science and engineering, the proceedings also appeal to researchers in the domain of electronics as it covers hardware technologies and future communication technologies.

1 This volume contains the research papers and invited papers presented at the Third International Conference on Tests and Proofs (TAP 2009) held at ETH Zurich, Switzerland, during July 2–3, 2009.

TheTAPconferenceisdevotedtotheconvergenceofproofsandtests. Itc- bines ideasfromboth sidesforthe advancementofsoftwarequality. Toprovethe correctness of a program is to demonstrate, through impeccable mathematical techniques, that it has no bugs; to test a program is to run it with the exp- tation of discovering bugs. The two techniques seem contradictory: if you have proved your program, it is fruitless to comb it for bugs; and if you are testing it, that is surely a sign that you have given up on any hope of proving its corre- ness. Accordingly, proofs and tests have, since the onset of software engineering research,been pursuedby distinct communities using ratherdi?erent techniques and tools. And yet the development of both approaches leads to the discovery of common issues and to the realization that each may need the other. The emergence of model checking has been one of the ?rst signs that contradiction may yield to complementarity, but in the past few years an increasing number of research e?orts have encountered the need for combining proofs and tests, dropping earlier dogmatic views of incompatibility and taking instead the best of what each of these software engineering domains has to o?er.

This book is designed for use as an introductory software engineering course or as a reference for programmers. Up-to-date text uses both theory applications to design reliable, error-free software. Includes a companion CD-ROM with source code third-party software engineering applications.

- Coverage of novel methods for software testing and software quality assurance
- Introduction to state-of-the-art data mining models and techniques - Analyses of new and promising application domains of artificial intelligence and data mining in software quality engineering - Contributions from leading authors in the fields of software engineering and data mining.

Interest in agile development continues to grow: the number of practitioners adopting such methodologies is increasing as well as the number of researchers

investigating the effectiveness of the different practices and proposing improvements. The XP c- ference series has actively participated in these processes and supported the evolution of Agile, promoting the conference as a place where practitioners and researchers meet to exchange ideas, experiences, and build connections. XP 2010 continued in the tradition of this conference series and provided an int- esting and varied program. As usual, we had a number of different kinds of activities in the conference program including: research papers, experience reports, tutorials, workshops, panels, lightning talks, and posters. These proceedings contain full - search papers, short research papers, and experience reports. Moreover, we have also included in these proceedings the abstracts of the posters, the position papers of the PhD symposium, and the abstract of the panel. This year we had two different program committees for evaluating research papers and experience reports. Each committee included experts in the specific area. This approach allowed us to better evaluate the quality of the papers and provide better suggestions to the authors to improve the quality of their contributions.

The importance of Software Engineering is well known in various engineering fields. Overwhelming response to my books on various subjects inspired me to write this book. The book is structured to cover the key aspects of the subject Software Engineering. This book provides logical method of explaining various complicated concepts and stepwise methods to explain the important topics. Each chapter is well supported with necessary illustrations, practical examples and solved problems. All the chapters in the book are arranged in a proper sequence that permits each topic to build upon earlier studies. All care has been taken to make students comfortable in understanding the basic concepts of the student. Some of the books cover the topics in great depth and detail while others cover only the most important topics. Obviously no single book on this subject can meet everyone's needs, but many lie to either end of spectrum to be really helpful. At the low end there are the superficial ones that leave the readers confused or unsatisfied. Those at the high end cover the subject with such thoroughness as to be overwhelming. The present edition is primarily intended to serve the need to students preparing for B. Tech, M. Tech and MCA courses. This book is an outgrowth of our teaching experience. In our academic interaction with teachers and students, we found that they face considerable difficulties in using the available books in this growing academic discipline. The authors simply presented the subjects matter in their own style and make the subject easier by giving a number of questions and summary given at the end of the chapter.

This book contains a selection of papers from The 2019 International Conference on Software Process Improvement (CIMPS'19), held between the 23th and 25th of October in León, Guanajuato, México. The CIMPS'19 is a global forum for researchers and practitioners that present and discuss the most recent innovations, trends, results, experiences and concerns in the several perspectives of Software Engineering with clear relationship but not limited to

software processes, Security in Information and Communication Technology and Data Analysis Field. The main topics covered are: Organizational Models, Standards and Methodologies, Software Process Improvement, Knowledge Management, Software Systems, Applications and Tools, Information and Communication Technologies and Processes in non-software domains (Mining, automotive, aerospace, business, health care, manufacturing, etc.) with a demonstrated relationship to Software Engineering Challenges.

This classroom-tested new edition features expanded coverage of the basics and test automation frameworks, with new exercises and examples.

A high-level introduction to new technologies andmethods in the field of software engineering Recent years have witnessed rapid evolution of software engineering methodologies, and until now, there has been no single-source introduction to emerging technologies in the field. Written by a panel of experts and divided into four clear parts, Emerging Methods, Technologies, and Process Management in SoftwareEngineering covers: Software Architectures – Evolution of software composition mechanisms; compositionality in software product lines; and teaching design patterns Emerging Methods – The impact of agent-oriented software engineering in service-oriented computing; testing object-oriented software; the UML and formal methods; and modern Web application development Technologies for Software Evolution – Migrating to Web services and software evolution analysis and visualization Process Management – Empirical experimentation in software engineering and foundations of agile methods Emerging Methods, Technologies, and Process Management in Software Engineering is a one-stop resource for software engineering practitioners and professionals, and also serves as an ideal textbook for undergraduate and graduate students alike.

A comprehensive treatment of systems and software testing using state of the art methods and tools This book provides valuable insights into state of the art software testing methods and explains, with examples, the statistical and analytic methods used in this field. Numerous examples are used to provide understanding in applying these methods to real-world problems. Leading authorities in applied statistics, computer science, and software engineering present state-of-the-art methods addressing challenges faced by practitioners and researchers involved in system and software testing. Methods include: machine learning, Bayesian methods, graphical models, experimental design, generalized regression, and reliability modeling. Analytic Methods in Systems and Software Testing presents its comprehensive collection of methods in four parts: Part I: Testing Concepts and Methods; Part II: Statistical Models; Part III: Testing Infrastructures; and Part IV: Testing Applications. It seeks to maintain a focus on analytic methods, while at the same time offering a contextual landscape of modern engineering, in order to introduce related statistical and probabilistic models used in this domain. This makes the book an incredibly useful tool, offering interesting insights on challenges in the field for researchers and practitioners alike. Compiles cutting-edge methods and examples of analytical approaches to systems and software testing from leading authorities in applied statistics, computer science, and software engineering Combines methods and examples focused on the analytic aspects of systems and software testing Covers logistic regression, machine learning, Bayesian methods, graphical models, experimental design, generalized regression, and reliability models

Written by leading researchers and practitioners in the field, from diverse backgrounds including research, business, government, and consulting Stimulates research at the theoretical and practical level Analytic Methods in Systems and Software Testing is an excellent advanced reference directed toward industrial and academic readers whose work in systems and software development approaches or surpasses existing frontiers of testing and validation procedures. It will also be valuable to post-graduate students in computer science and mathematics.

The purpose of the 9th International Conference on Software Engineering Research, Management and Applications(SERA 2011) held on August 10-12, 2011 in Baltimore, Maryland was to bring together scientists, engineers, computer users, and students to share their experiences and exchange new ideas and research results about all aspects (theory, applications and tools) of computer and information sciences, and to discuss the practical challenges encountered along the way and the solutions adopted to solve them. The conference organizers selected 12 outstanding papers from SERA 2011, all of which you will find in this volume of Springer's Studies in Computational Intelligence.

For a large, complex system, the amount of test cases in a regression test suite can range from a few hundred to several thousands, which can take hours or even days to execute. Regression testing also requires considerable resources that are often not readily available. This precludes their use in an interactive setting, further contributing to an inefficient testing process. Cloud computing offers the use of virtualized hardware, effectively unlimited storage, and software services that can help reduce the execution time of large test suites in a cost-effective manner. The research presented by Tilley and Parveen leverages the resources provided by cloud computing infrastructure to facilitate the concurrent execution of test cases. They introduce a decision framework called SMART-T to support migration of software testing to the cloud, a distributed environment called HadoopUnit for the concurrent execution of test cases in the cloud, and a series of case studies illustrating the use of the framework and the environment. Experimental results indicate a significant reduction in test execution time is possible when compared with a typical sequential environment. Software testing in the cloud is a subject of high interest for advanced practitioners and academic researchers alike. For advanced practitioners, the issue of cloud computing and its impact on the field of software testing is becoming increasingly relevant. For academic researchers, this is a subject that is replete with interesting challenges; there are so many open problems that graduate students will be busy for years to come. To further disseminate results in this field, the authors created a community of interest called "Software Testing in the Cloud" (www.STITC.org), and they encourage all readers to get involved in this exciting new area.