Abstract

Due to the increasing complexity of web systems, security testing has become indispensable and critical activity of web application development life cycle. Security testing aims to maintain the confidentiality of the data, to check against any information leakage and to maintain the functionality as intended. It checks whether the security requirements are fulfilled by the web applications when they are subjected to malicious input data. Due to the rising explosion in the security vulnerabilities, there occurs a need to understand its unique challenges and issues which will eventually serve as a useful input for the security testing tool developers and test managers for their relative projects.

References

- Special section on testing and security of Web systems Alessandro Marchetto. Published online: 14 October 2008 © Springer Verlag 2008


- Testing of Web Applications: A Research Plan. Andrea Avancini Fondazione Bruno
Kessler, Trento, Italy. 978-1-4673-1067-3/12/$31.00c 2012 IEEE.
International Conference on Software Testing Verification and Validation Workshop (ICST&W) 978-0-7695-3388-9/08 $25.00 © 2008 IEEE.
- A Threat Model Driven Approach for Security Testing. Linzhang Wang, Department of Computer Science, Nanjing University, Eric Wong, Department of Computer Science, University of Texas at Dallas, Dianxian Xu, Department of Computer Science, North Dakota State University. Third International Workshop on Software Engineering for Secure Systems (SESS) 978-0-7695-3388-9/08 $25.00 © 2008 IEEE.
- D-WAV: A Web Application Vulnerabilities Detection Tool Using Characteristics of Web Forms. Lijiu Zhang, Qing Gu, Shushen Peng, Xiang Chen, Haigang Zhao, Daoxu Chen State Key Laboratory of Novel Software Technology, Department of Computer Science and Technology, Nanjing University. 2010 Fifth International Conference on Software Engineering Advances.
- The Security Requirements Behavior Model for Trustworthy Software Kassem Saleh1 and Maryam Habil2. 1Kuwait University, Dept. of Information Science, 2American University of Sharjah, Dept. of Computer Science. 0-7695-3082-6/08 $25.00 © 2008 IEEE. 2008 International MCETECH conference on e-technologies.
- Enhancing web page security with security style sheets Terri Oda and Anil Somayaji (2011) IEEE.
- Raising the bar on software testing - Alden Dima, John Wack, and Shukri Wakis (1999)IEEE.
Security Testing of Web Applications: Issues and Challenges


- Automated Security Test Generation with Formal Threat Models Dianxiang Xu, Senior Member, IEEE, Manghui Tu, Michael Sanford, Lijo Thomas, Daniel Woodraska, and Weifeng Xu, Senior Member, IEEE. IEEE TRANSACTIONS ON DEPENDABLE AND SECURE COMPUTING, VOL. 9, NO. 4, JULY/AUGUST 2012.
- Structural Testing of Web Applications. Chien-Hung Liu David C. Kung Pei Hsia, Department of Computer Science and Engineering. Chih-Tung Hsu, Sun Microsystems, Inc. 0-7695-0807-3/0$01 0. 00 0 2000 IEEE.
- A new solution for complex security testing, DongHu, Department of Teaching Affairs. 2009 International Conference on Test and Measurement.
- Model-checking Driven Security Testing of Web-based Applications. Alessandro Armando, Roberto Carbone ,DIST, University of Genova, Genova, Italy ; Luca Compagna,, Keqin Li, Giancarlo Pellegrino, SAP Research, Mougins, France. 978-0-7695-4050-4/10 $26. 00 © 2010 IEEE.
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Keywords

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