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Different Approaches To Black box Testing Technique For Finding Errors

Mohd. Ehmer Khan

Al Musanna College of Technology, Sultanate of Oman

ABSTRACT

Software testing is the process of analyzing software to find the difference between required and existing condition. Software testing is performed throughout the development cycle of software and it is also performed to build quality software, for this purpose two basic testing approaches are used, they are white box testing and black box testing. One of the software testing technique which I have explain in my paper is Black Box Testing, it is a method of generating test cases that are independent of software internal structure, I have also briefly explore various different approaches to black box testing technique for finding errors. Since black box testing is always based either directly or indirectly on the software specification so it is also called specification based testing.

KEYWORDS

Equivalence Partitioning, Boundary Value Analysis, Fuzz Testing, Orthogonal Array Testing, All Pair Testing

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Author

Mohd. Ehmer Khan I completed my B.Sc in 1997 and M.C.A. in 2001 from Aligarh Muslim University, Aligarh, India, and pursuing Ph.D (Computer Science) from Singhania University, Jhunjhunu, India. I have worked as a lecturer at Aligarh College Engineering & Management, Aligarh, India from 1999 to 2003. From 2003 to 2005 worked as a lecturer at Institute of Foreign Trade & Management, Moradabad, India. From 2006 to present working as a lecturer in the Department of Information Technology, Al Musanna College of Technology, Ministry of Manpower, Sultanate of Oman. I am recipient of PG Merit Scholarship in MCA. My research area is software engineering with special interest in driving and monitoring program executions to find bugs, using various software testing techniques.



An Application of Physics Experiments of High School by using Augmented Reality

Hussain Mohammed Abu-Dalbouh, Samah Mohammed AlSulaim, Shaden Abdulaziz AlDera, Shahd Ebrahim Alqaan, Leen Muteb Alharbi and Maha Abdullah AlKeraida

Qassim University, Computer Science Department, College of Sciences and Arts in Unaizah, Qassim, Kingdom of Saudi Arabia

ABSTRACT

There has been done little research to validate the utility and usability of virtual and augmented reality environments. The evaluation of usability of these new technologies is very important to design systems that are more intuitive than a traditional method. Such an evaluation is also important for future development of applications that can gain from this new technology. The augmented reality (AR) is a technology that embedded virtual object (video, picture and 3D object) to the user view the real world. The combination of AR technology with the educational content creates new type of automated applications and acts to enhance the effectiveness and attractiveness of teaching and learning for students in real life scenarios. The study aims to improve the teaching methods used in secondary school by employing modern educational technology and thus assess the effectiveness of AR apps in teaching students the physics experiments. Therefore, in this study we took the challenge of adapting this technology to facilitate physics subject in secondary school.

KEYWORDS

Augmented Reality, Physics, Education, System, Students, Teachers, Technology, Mobile, Lab, Virtual Reality

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Understanding the Characteristics, Benefits and Challenges of Agile IT Project Management: A Literature Based Perspective

Godfred Yaw Koi-Akrofi¹ , Joyce Koi-Akrofi² and Henry Akwetey Matey³

^{1,3}Department of IT Studies, University of Professional Studies, Accra ²PMO Department, Vodafone Ghana

ABSTRACT

The objectives of this study was to bring out the understanding of the concept of agile IT project management; what it is and what it is not. It was also aimed at comparing the pros and cons of both agile and traditional methods of IT project management in a typical industry setting; the challenges of going purely agile, and so on. It is purely a review of literature of peer reviewed papers sourced mainly from Google Scholar. It was revealed that agile outweigh the traditional methods in terms of benefits, but its implementation poses a lot of challenges due to a number of issues, paramount among them being organizational culture and empowerment of the project team. This has resulted in a number of industries sticking to the traditional methods despite the overwhelming benefits of agile. In another school of thought, the combination of the two paradigms is the way forward.

KEYWORDS

Project Management, Scrum, Agile, Software, Traditional

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Essential Activities for Secure Software Development

Mamdouh Alenezi and Sadiq Almuairfi

Prince Sultan University, Saudi Arabia

ABSTRACT

Diverse types of software are used in almost all sectors of businesses in the modern world. They provide mechanisms that enable buyers and sellers to interact virtually, reduce manual work in businesses and institutions as well as make work a lot easier. Increased demand for software has led to the increased investment that has subsequently attracted numerous security attacks. Millions of resources are held in various software worldwide, cyber-attack criminals have made a career in breaching software security for selfish gains, thus necessitating the development and establishment of secure software. Through a literature review, the work introduces concepts and terms used in secure software development, presents the best practices and provides a review of the models that could be used. Confidentiality, integrity, availability, and non-repudiation are secure software terms that mean it should be secret, safe, and accessible and keeps a record of every activity undertaken. The proposed work advocates for several best practices among them the creation of a secure perimeter that limits access to key segments or parts of the system in addition to reducing attacking surface or rather reducing the opportunities available for cyber-attack. In regard to the engineering of software, the paper recommends that system requirements must be established before the software is created. Additional engineering ought to be done after the system has been evaluated just before the official launch. Moreover, the paper recommends the adoption of strategies that are used by renowned software models such as Microsoft Software Development Life-cycle among others. Those models have put secure software strategies throughout the life-cycle of software development. They recognize the need to put secure engineering systems during the design and utilization of the software because new methods of breaching software security come up every new day. The paper concludes by noting that continued collaborative efforts to guarantee more secure software is still a demanding need. Adherence to basic secure software development and utilization is essential in addition to developing additional engineering that maintains the integrity, confidentiality and accessibility of the software.

KEYWORDS

Software Engineering, Software Quality, Software Security Development.

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Study the impact of Requirements management Characteristics in global software development projects: An Ontology based approach

S.Arun Kumar and T.Arun Kumar

VIT University, India

ABSTRACT

Requirements Management is one of the challenging and key tasks in the development of software products in distributed software development environment. One of the key reasons found in our literature survey the failure of software projects due to poor project management and requirement management activity. This main aim of this paper 1. Formulate a framework for the successful and efficient requirements management framework for Global Software Development Projects. (GSD) 2. Design a Mixed organization structure of both traditional approaches and agile approaches, of global software development projects. 3. Apply Ontology based Knowledge Management Systems for both the approaches to achieve requirements issues such as missing, inconsistency of requirements, communication and knowledge management issues and improve the project management activities in a global software development environment. 4. Propose requirements management metrics to measure and manage software process during the development of information systems. The major contribution of this paper is to analyze the requirements management issues and challenges associated with global software development projects. Two hypotheses have been formulated and tested this problem through statistical techniques like correlation and regression analysis and validate the same.

KEYWORDS

Requirements Management (RM), Ontology, Requirements Management Metrics, Knowledge Management (KM), Global Software Development (GSD).

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