An Extended Knowledge Management Framework during Software Development Life Cycle

ABSTRACT

Knowledge is one of the organization’s most important values that influencing its competitiveness. One way to capture organization’s knowledge and make it available to all their members is through the use of knowledge management systems. In this paper I discussed the importance of knowledge management in software development and I presented an infrastructure to deal with knowledge management in software engineering environments (SEEs).

Knowledge is one of the organization’s most valuable assets. In the context of software development, knowledge management can be used to capture knowledge and experience generated during the software process.

This Research paper addresses a new way of thinking about the role of knowledge management in software engineering environments through developing a new extended hybrid framework that combines a five types of knowledge: user requirements knowledge, functional domain knowledge, technical knowledge, project status knowledge, and project experience knowledge) with five phases of software development (planning, analysis, design, implementation, and maintenance & support) with five phases of knowledge management life cycle (capture, creation, codification, communication, and capitalization). This new framework I called “An Extended Knowledge Management Framework during Software Development Life Cycle”.

This paper highlights on knowledge management in software environments, its challenges, opportunities, implementation, and its success factors.

Keywords: software development (SD), knowledge (K), knowledge management (KM), organizational memory (OM), requirements knowledge, domain knowledge, technical knowledge.