

Design an Algorithm for Software Development in CBSE Environment Using Feed Forward Neural Network

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Abstract : In software development organizations, Component based Software engineering (CBSE) is emerging paradigm for software development and gained wide acceptance as it often results in increase quality of software product within development time and budget. In component reusability, main challenges are the right component identification from large repositories at right time. The major objective of this work is to provide efficient algorithm for storage and effective retrieval of components using neural network and parameters based on user choice through clustering. This research paper aims to propose an algorithm that provides error free and automatic process (for retrieval of the components) while reuse of the component. In this algorithm, keywords (or components) are extracted from software document, after by applying k mean clustering algorithm. Then weights assigned to those keywords based on their frequency and after assigning weights, ANN predicts whether correct weight is assigned to keywords (or components) or not, otherwise it back propagates in to initial step (re-assign the weights). In last, store those all keywords into repositories for effective retrieval. Proposed algorithm is very effective in the error correction and detection with user base choice while choice of component for reusability for efficient retrieval is there.

Keywords : component based development, clustering, back propagation algorithm, keyword based retrieval

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