

Abstract

Hany R Moawad Mohamed

Cost Estimation for Web Application

Software becomes increasingly expensive to develop and is a major cost factor in any information system budget. When planning a software project, early estimation of development effort/cost is a critical management activity. It aims at predicting an accurate effort estimate and using this information to allocate resources adequately. This activity is crucial for the competitiveness of a software company. The accuracy of estimation of software project cost has a direct and significant impact on the quality of the firm's software investment decisions. Management carefully considers costs and benefits of software before committing the required resources to that project bidding for a contract. There are several methods for software project cost estimation. But the practice of these methods shows that the estimate is 50% to 100% inaccurate in the definition phase of software project. This problem of inaccurate estimates of software project effort/cost can lead to the whole project failure since the project is considered a failed one if it is not finished on time and within budget and can be cancelled before its termination. Moreover, web applications are different in many aspects from traditional software development. Therefore web applications projects managers have to consider other processes, metrics and models to estimate the project cost and effort. The objective is to propose a methodology for web application cost estimation. Study of most previous work in this area, shows shortcomings in the following key issues: 1) There is no constant size measure used in web application cost estimation techniques. 2) There is no web application cost estimation technique has into consideration the efforts done throughout the whole life cycle. 3) There are no automated tools for automating data collection. 4) The empirical validation studies show that the cross-company data set provided poor predictions than the single-company data set. The focuses on the first two problems related to size measure and development life-cycle, and accordingly proposes an estimation methodology process that defines six steps for estimating the effort/cost that incorporates a set of significant project factors necessary to measure and assess the project as a whole.