In Agile Projects - Arithmetic Sequence is More Effective than Fibonacci Sequence to Use for Estimating the Implementation Effort of User Stories

Authors : Khaled Jaber

Abstract : The estimation of effort in software development is a complex task. The traditional Waterfall approach used to develop software systems requires a lot of time to estimate the effort needed to implement user requirements. Agile manifesto, however, is currently more used in the industry than the Waterfall to develop software systems. In Agile, the user requirement is referred to as a user story. Agile teams mostly use the Fibonacci sequence 1, 2, 3, 5, 8, 11, etc. in estimating the effort needed to implement the user story. This work shows through analysis that the Arithmetic sequence, e.g., 3, 6, 9, 12, etc., is more effective than the Fibonacci sequence in estimating the user stories. This paper mathematically and visually proves the effectiveness of the Arithmetic sequence over the FB sequence.