

ID 244

A Comprehensive Study on Software Evolution in Plan-driven and Agile Methodologies

NS Wisidagama^{1#}, ML Karunarathne¹, PDCJ Paranagama¹, RMDKN Rathnayake¹, and BNS Lankasena²

¹Faculty of Computing, General Sir John Kotelawala Defence University, Ratmalana, Sri Lanka
²Faculty of Technology, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

#37-se-0012@kdu.ac.lk

Abstract

This research paper examines the evolution of software development approaches, focusing specifically on the comparison between agile and plan-driven methodologies. The paper provides an overview of the historical development of software development approaches, highlighting the shift towards more flexible and collaborative methods with the emergence of agile methodologies. The paper then explores the benefits and challenges of agile and plan-driven approaches, drawing on a range of case studies and empirical research. The research highlights the importance of effective project management, communication, and collaboration in facilitating the successful implementation of both agile and plan-driven methodologies. The paper also emphasizes the need to consider the specific needs and requirements of each software development project when deciding which approach to use. Overall, the research provides insights into the evolution of software development approaches and offers practical recommendations for project managers and software developers seeking to optimize their software development processes.

Keywords: Agile Methodologies, Plan-driven, Software evolution