Identification of the Software Development Methodology for a Home Garden Based Ayurvedic Plant Identification System using CNN

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Abstract. There are several software development methodologies in the current world. In order to manage and have an efficient process throughout the software project, it is required to follow a proper software development methodology. The software development method should be selected after considering which software development methodology would work best for the project. Every methodology has its own set of strengths and weaknesses. This study is focused on selecting the best-suited software process model for a plant identification system using machine learning techniques such as CNN. The proposed system to be developed is a home-garden-based Ayurvedic Plant Identification System. It is capable of identifying the Ayurvedic plant's available in-home gardens and providing the user with valuable information such as the medicinal values and the areas where the plants can be found. This project involves technologies such as convolutional neural networks (CNN), image processing, and machine learning. This study has determined that the Agile method is the most appropriate software development life cycle for this project.

Keywords: *Software Process, Plant Identification System, Software Development Methodology*