

**FINEGREENS HG: HOME GARDENING
SOLUTION OF ESSENTIAL PRODUCTS
FOR THE HOUSEHOLDS**

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A dissertation submitted in partial fulfilment
of the requirement for Bachelor of Science
(Honours) degree in Business Information
Systems

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Informatics Institute of Technology, Sri Lanka
in collaboration with
University of Westminster, UK**

2021

Abstract

Home gardening is one of the key developing domains in Sri Lanka which includes various type of factors and aspects in its development process. Main problems identified in the home gardening domain is not having proper options to identify the best fit crops for the households to get into the home gardening and start their cultivations in a proper manner. In addition to that, not having proper knowledge to successfully continue the home gardening at their premises and not being able to distinguish the nearest suppliers to purchase crops have become common problems to households that requires proper methodical solution. Considering those main problems, a background research was conducted with the aim of identifying the factors that effects the home gardening cultivation in the wet zone climate area in Sri Lanka and to provide a proper design to develop, test and evaluate a solution to boost the home gardening productions and increase the effectiveness of the operations in agriculture industry.

Deep review in the literature, questionnaires and interviews with experts were used to analyse and evaluate the validity of the major concerns in the home gardening domain. Based on the gathered information, it was concluded that households experience higher percentage of failures due to their lack of knowledge and inability to purchase the quality crops. As an outcome of the above process, it was identified that proper option is needed for households to identify the available crops based on their environment factors and space capacity of their premises. Further, the requirement of an online platform was highlighted to get support from the home gardening domain experts. Based on the outcome, web application: *FineGreens HG* was designed and developed to identify the matching crops for the households based on their environment factors and the availability of the space capacity in their premises including the ability to make purchases of those recommended crops from the nearest suppliers in addition to an online platform to get consultancy services from the home gardening domain experts. Developed solution was evaluated by the experts and non-experts to analyse the usability of the available functionalities and whether the

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developed functionalities address the identified problems to achieve the successful implementation of the proposed solution.