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Abstract. Several sectors, including technology, influence the need for food to date. Global heating conditions also impact the existing food system since poor agricultural conditions reduce farm product output and increase famine risk. As cybernated start-ups develop, it enables multiple parties to develop start-ups in farming and food sectors. This study aims to develop a self-agriculture and food start-up app based on Android OS. This application allows each user to prepare and commercialise food items autonomously. The system is intended to encourage individuals to perform tasks such as cultivating and selling harvests, purchasing dietary commodities, and monitoring current microclimate circumstances.

1. Introduction

Decreased cropland and shrinkage of agricultural land encourage every human to self-sufficient agriculture. Besides, climate change also influenced the existing food system [1]. There are many things that everyone can do to start instilling agricultural independence, such as start-up-based agriculture [2]. This idea can also support sustainable development goals (SDGs), including the form of agriculture and food, undoubtedly.

In the industrial revolution era, the agricultural sector was also developed as a start-up and innovated by modern agrarian start-ups [2]. Economically, start-up-based agriculture can increase the agricultural enterprises, environmental safety, and efficiency of the existing production system, respectively [2,3]. One of the big problems in the farming sectors is self-agriculture and the food chain. Technology undoubtedly influences these roles, so every agrarian needs to adapt due to agricultural technology [4]. Besides, in the new standard era after the pandemic, the requirements of working in space together are needed [5,6]. Start-up technology provided the concept of real-time connection with working together, sometimes also in different places and times.

Today, in the era of digitalisation, agriculture sectors have been influenced, and new policymakers suggested digitalised agriculture [7]. Besides, it is crucial for the subsequent economic development of