Agent-oriented requirement engineering for mobile application development

ABSTRACT

Mobile application development is receiving much attention nowadays. With the enhancement of mobile application tools like an Android studio, etc. and kinds of online support, the development of the mobile application is getting easier. Indeed, mobile application development is not a trivial task. When given a particular problem, a novice mobile programmer will commonly sketch the mobile interface followed by coding. The rapid prototyping technique and trial from errors have led to issues such as poor domain understanding. We argue that a complete understanding of the domain is needed for mobile application development. Hence, requirements engineering is an important phase. This paper introduces a technique to assist mobile application development through Agent-Oriented Requirements Engineering (AORE). AORE consists of goal modelling to analyse and understand a mobile-based project. With goal modelling, AORE allows a modeller to identify and analyse the functionalities and non-functionalities of the system and present a holistic view of the proposed system. It showcases the services, operations and constraints of the proposed system. AORE is a useful part of the development phase and can complement current steps in mobile application development lifecycle.

Keyword: Requirement engineering for mobile application; Agent-oriented modelling; Functional and non-functional requirement