Building Mobile Applications with Architecturer

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Abstract

Mobile application will normally be structured as a multi-layered application consisting of user experience, business, and data layers. When developing a mobile application, you may choose to develop a thin Web-based client or a rich client. If you are building a rich client, the business and data services layers are likely to be located on the device itself. There are several common issues that you must consider as your develop your design. These issues can be categorized into specific areas of the design. When designing an application or system, the goal of a software architect is to minimize the complexity by separating the design into different areas of concern. For example, the user interface (UI), business processing, and data access all represent different areas of concern. Within each area, the components you design should focus on that specific area and should not mix code from other areas of concern. For example, UI processing components should not include code that directly accesses a data source, but instead should use either business components or data access components to retrieve data.

In this talk, I will present our architecture for building adaptive mobile applications. I also review several interesting architectural patterns and describe why they are useful as general mobile application architecture   solutions. Client/server architecture (and its variants) is often adopted for this kind of applications. I will present the consideration some specific aspects related to the mobile devices (clients), and their connectivity with servers

Dr. Haeng-Kon Kim was a vice President of Research and Information, a dean of engineering college and a professor in the School of IT, Catholic University of Daegu, in Korea. He has been a research staff member in Bell Lab., NASA center and Central Michigan University in U.S.A. He has taught in Central Michigan Univ. in U.S.A. during his Sabbatical (Dec., 20, 2000 ~ Feb., 20, 2002).

Prof. Kim advised 17 Ph.D students and 24 master Degree students in his Laboratory of Catholic Univ. of DaeGu in KOREA. His research interests include following fields: Software Engineering, Mobile Applications Design and Testing, SOA, and Frameworks for U-Healthcare Services.

Prof. Kim is chief editor of KIPS SE-Sig journal and Korea Multimedia Society, an editorial board of KISS(Korea Information Science Society), a steering committee of KIPS (Korea Information Processing Society). He was an organization committee (publicity chair) of ACIS and SEITI at CMU in U.S.A. He is also a president of SERSC in Australia He is also a member WCECS in HongKong.