Internationalization and Localization for Web and Mobile Applications

Peng Wang
wangkevin@cityuniversity.edu
Pinterest, Inc.

Hee Jung Sion Yoon
yoonhee@cityu.edu

Sam Chung
chungsam@cityu.edu

School of Technology & Computing
City University of Seattle

Abstract

Building web and mobile applications that quickly adapt to the language, currency, number formatting, etc., of different regions – called internationalization and localization – has become more critical for most companies since the Internet allows these applications to reach foreign customers easily. However, the high development and maintenance cost and negative performance impact are two significant problems for implementing internationalization and localization functionalities. This paper analyzes current solutions that are handling the internationalization and localization problem for web and mobile applications. The advantages and disadvantages of each approach are listed and compared. Based on the information from the analysis, a new system is designed to offer a better internationalization and localization solution with a low cost and a low-performance impact.

Keywords: Internationalization, Localization, Web Application, Mobile Application, Cloud Computing

An updated manuscript may be found at https://jisar.org