

Title: A device status-aware framework for optimal battery utilization in mobile devices

Abstract

Adaption of the content for mobile devices is a challenging task. It is mainly because adaption depends on the usage semantics of content as well as the user requirements. The purpose of this project is to propose a framework that adapts the data received by the mobile application according to: (1) the current user mobile status in terms of battery and network, and (2) the user requirements in terms of quality of services. An adaptive mobile application is supposed to offer a better user experience by enhancing the usability of the application. In this project, we aim to consider battery status as one of the most important factors to take into account for adapting the data to send to the mobile application.

Objectives:

- 1) State of the art of the current research projects dealing with :
 - a. Mobile application development frameworks
 - b. Context-aware mobile applications
 - c. Web services for mobile applications
- 2) Suggest a new framework to implement adaptive mobile application content to the current status of the devices and the defined user requirements in terms of quality of service
- 3) Suggestion and the implementation of effective policies to direct the content adaption
- 4) Implementation of a proof of concept prototype: e-health application

Estimated Duration: 1 year and half

Tools: J2ME