Abstract

Mobile devices such as cellular phones (CPs) are crucial in our daily life. A lot of work has been done to handle the problems of designing and developing of GUI and applications for CPs. In this paper, we survey the existing strategies to design and implement of GUI for CPs. In addition, the paper reviews the methods to develop the applications for CPs and the guidelines to overcome the problems which face these methods especially using XHTML in mobile devices and ordinary web browsers. In addition, we present a bug study and categorization of android-specific bugs that shows an important number of android bugs. We introduce a new approach for testing GUI. The new approach focus on generating set of actions to test the user interface. The approach detects android GUI bugs, based on a combination of android application analysis tool and event generation with runtime monitoring technique. We introduce an empirical study to shows the efficiency of our approach.

References

Design and Implementation of the User Interfaces and the Applications for Mobile Devices

- V. Davis, J. Gray, J. Jones, Generative approaches for application tailoring of mobile devices. 43rd annual Southeast regional conference, Georgia, USA, 2005.
- C. Hu, I. Neamtiu, Automating GUI Testing for Android Applications, 6th International
Workshop on Automation of Software Test, pp. 77-83, 2011.

Index Terms

Computer Science Mobile Technologies

Keywords
Performance Requirements Ui Design