

Spring 2011 – Three-Day Course for LexisNexis Android Application Development



Course Syllabus: Application development with Google's Android mobile phone; use of application development tools; and illustration of rapid prototyping with several Apps, of general interest and/or specific relevance to LexisNexis.

Text Book: Hello, Android by Ed Burnette, 3rd edition, Pragmatic, 2010

References: <http://android.fau.edu/> - Our Android site w numerous Apps & Tutorials

Helpful Background: Programming in Java/C++

Instructor: Ravi Shankar, Professor and Director, CSI, CEECS

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Course Time and Place: 4/16-18, 8.30 AM to 5 PM, EE Bldg (Class room: 207 for 4/16-17 and 405 for 4/18)
Breakfast (in 405 EE) & Lunch (in FAU Cafeteria): Complementary

Goals: (1) Demonstrate rapid prototyping; (2) Show sufficient number of application examples to articulate wide applicability of the smart phone; and (3) show application examples that are relevant to the data-centric and semantic focus of LexisNexis.

Course Background: Android is an open source software toolkit for mobile phones that was created by Google and the Open Handset Alliance. Android phones comprise 50% of Smart Phone Market Share at present. Android is the first environment that combines the following: a truly open, free development platform based on Linux and open source; a component based architecture inspired by Internet mashups; extensive built-in services, out of the box; automatic and secure management of the application life cycle; high quality graphics and sound; and portability across a wide range of current and future hardware.

According to Wikipedia, LexisNexis was founded as a “database service and an electronic research unit.” The company website notes: LexisNexis® harnesses leading technologies to deliver topical content, information analytics and workflow solutions that are key to success for legal, business, risk and academic professionals. We have developed the course content based on this focus; the content also shows avenues to build collaborations between LexisNexis and FAU.

Detailed Schedule: Please bring your laptop to the class. We will supply phones.

Saturday, 4/16/11 Focus: Components for Application Development
Morning: Tool Installation, Overview, Lifecycle, XML, and Java
Afternoon: Advanced Topic: Web Services and Semantic Web Apps (FAU's examples)
App Example: Sudoku (from the text book)
Self-Explore: Java in Android – see Appendix A/ Text Book

Sunday, 4/17/11 Focus: Basic Components for Graphics, Multimedia, and Animation
Morning: App Example: Sudoku (from the text book)
Afternoon: Advanced Topic: JADE for multi-agent (software) systems
App Examples from FAU: Doodle Book, SSLA, and Nuts About Pong
Self-Explore: Android APIs – see <http://d.android.com/index.html>

Monday, 4/18/11 Focus: Beyond the Basics
Morning: Web browser, Location Based Service, SQLite (text book examples)
Afternoon: Advanced Topic: NDK for performance critical applications, Or
Open GL ES for Animation (FAU's example: Yahtzee)
App Examples from FAU: 5LWG, Twee-fi-fo-fum, and Trivia
Self-Explore: Our well-visited Android websites – android.fau.edu, semanticweb.fau.edu, and others.