CSE227:ADVANCED ANDROID APP DEVELOPMENT

L:2 T:0 P:2 Credits:3

Course Outcomes: Through this course students should be able to

CO1 :: illustrate use of cloud based databases and data stores to enable exclusive experience for users.

CO2 :: describe GEO features, advanced graphics that make application more attractive

CO3 :: compare and integrate techniques to optimize apps for faster execution in maps and places

CO4 :: construct and develop apps using connectivity with other devices through tools available for both wired and wireless protocols.

CO5 :: distinguish suitable libraries and apply to make sensor based apps more intuitive.

CO6 :: perform WebView in apps for rich user experience on different web-based android applications.

Unit I

Firebase : Real Time Database, authentication, Storage

Unit II

Advanced Graphics : Canvas, Animations, Transitions

Unit III

Maps and places : Location, places autocomplete, current place, place details etc

Unit IV

Sensors : Motion sensors, Position sensors, Environment sensors

Unit V

Connectivity : Perform network operations overview, Bluetooth overview, Wi-Fi peer-to-peer overview, Companion device pairing overview, Connect devices wireless overview

Unit VI

Web-Based Content : Building and Managing Web Apps in WebView, Migrating to WebView in Android, Supporting Different Screens in web Apps, Advance android programming

List of Practicals / Experiments:

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- Firebase: Create an application based on Firebase Database

- Maps and places: Create an application which will display map in the application.

- Sensors: Create an application based on different types of sensors.

- Connectivity: Create an application which will turn on and off your Bluetooth device and show nearby Bluetooth devices.

- Web-Based Content: Create an application to show the content in the WebView.

Text Books: 1. . THE ANDROID DEVELOPER'S COOKBOOK: BUILDING APPLICATIONS WITH THE ANDROID SDK by RONAN SCHWARZ, PEARSON

References: 1. ANDROID APPLICATION DEVELOPMENT ALL-IN-ONE FOR DUMMIES by BARRY BURD, JOHN PAUL MUELLER, WILEY