Spokane Community College
COURSE LEARNING OUTCOMES (CLO) AND OUTLINE

Course Title: Mobile Development II
Prefix and Course Number: CIS 218
Version Date: 1/24/2022

Course Learning Outcomes

By the end of this course, a student should be able to:

1. Use advanced language coding techniques in Kotlin.
2. Create CRUD based Mobile applications that use internet protocols to interact with online API services
3. Create and utilized OpenAPI specifications for developing standard API applications
4. Create public online API Services to interact with native Mobile applications
5. Deploy API applications to online cloud services
6. Receiving data feeds from remote cloud based services/API's
7. Local storage of data retrieved from the cloud services
8. Build advanced smartphone/tablet applications that utilize the native interface

Course Outline:

I. Introduction to Mobile Networking connections
   A. Setting up connections from the smart device to a remote service
   B. Reading and writing JSON data streams
   C. Error checking and connection through WIFI and Phone networks
II. Creating a Web Service for use with mobile apps
   A. Establishing Web Based API's
   B. REST Standard API's
   C. Create and use OpenAPI specifications
   D. Sending and Receiving JSON data packages
   E. Sending and Receiving XML data packages
III. Utilizing Existing Cloud-based API's
   A. Obtaining API keys
   B. Installing required libraries
   C. Connecting to services
   D. Reading the API documentation
   E. Utilizing the data in native applications.
IV. Local Storage of Data
   A. Saving data in various formats to the native device
   B. Retrieving data and populating the app's interface
   C. Scrolling lists of data, detail pages,
   D. CRUD operations on the local data