Native Android Application for Deactivation and Decommissioning Technologies

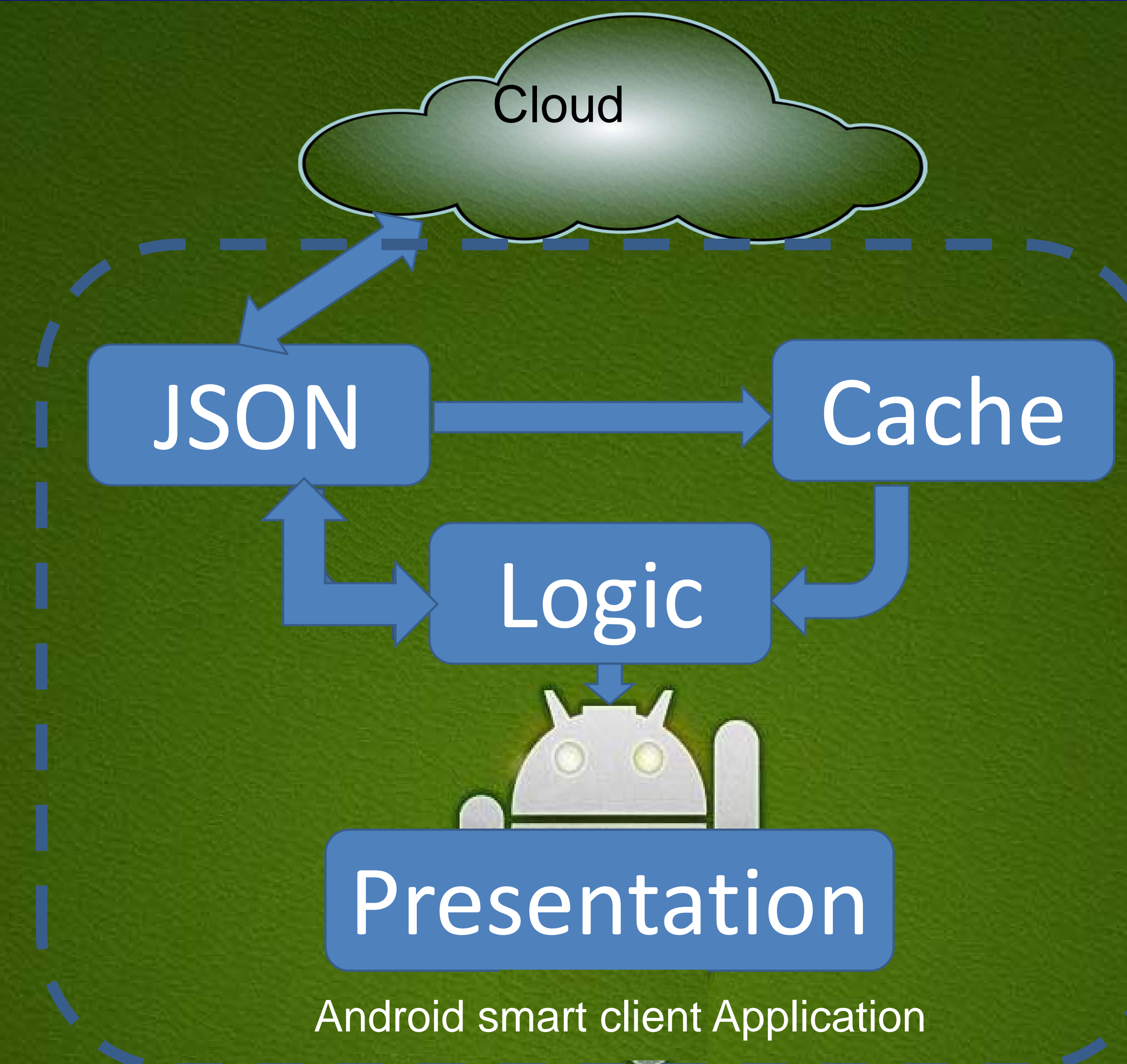Chandrashekar Gama Deshika Swamy (FIU Graduate Student), Dr. Leonel Lagos, Himanshu Upadhyay

INTRODUCTION

- The D&D KM-IT (www.dndkm.org) is a web-based knowledge management information tool custom built for the D&D user community. This system was developed by the Applied Research Center (ARC) at Florida International University (FIU) in collaboration with the U.S. Department of Energy Office of Environmental Management (DOE EM).
- The knowledge base can be accessed on computers and mobile devices with suitable browsers.
- The mobile client to server requests have heavy overhead and uses considerable resources like memory, CPU and battery.
- This challenge brings the need for an efficient and easy way to access the D&D knowledge base through mobile devices.

OBJECTIVES

- Design and development of a native android application to access the Deactivation and Decommissioning Knowledge Management repository.
- To study the requirement of the user accessibility and hence create an efficient system to request, fetch and render information.

METHODS

Android smart client Application

- The Android Mobile device stores the technology information received from the cloud using JSON query.
- The logic unit checks the stored cache and updates as required.
- The complex JSON text is parsed to provide the technology information to the user.
- This stored cache information helps user to access D&D technology information with limited or intermittent internet access.

RESULTS

Emulator Output

PATH FORWARD

- Development of the native android application, using the latest version API level 19 code named Kitkat.
- Thorough testing of the android application for various functionality.
- To facilitate access to valuable D&D technology information under intermittent or limited internet access.
- Promote and enhance the user experience of accessing D&D KMIT through mobile devices.