**CS5542 Big Data Apps and Analytics**

**LAB ASSIGNMENT #6**

**Lab Submission before 2017/3/1(W) 11:59PM.**

* Follow the guidelines for uploading assignment to GitHub
* Submit the screenshots of the task under documentation folder in GitHub and push the code to Source folder in GitHub
* **No late submissions** (penalty or not) will be accepted.
* Create **wiki page** for report and include **images in wiki page**
* Submit your Github project for Lab Assignments with source code, input and output data and wiki page containing the report for your lab Assignment. [**https://goo.gl/forms/L5NVqbdwBwkwK2n13**](https://goo.gl/forms/L5NVqbdwBwkwK2n13)

1. **Spark Programming:**

**Write a spark program for the following Machine Learning Task.**

Create your own dataset for Image Classification/Object Detection Problem. Handle fuzzy classification/object detection task using at least two classification algorithms (e.g., Decision Tree, Random Forest, Naïve Bayes). Report the accuracy and confusion matrix obtained.

In the Wiki Page, include a brief description of your dataset and your approach and results for image classification

1. **Android Application using Spark API/Clarifei API**

Write an Android application

1. Image classification (fuzzy) and object detection through the Spark API
2. Image classification/object detection using Clarifei API https://www.clarifai.com/api

Refer to Tutorial 6 for fuzzy image classification/object detection

Refer to Tutorial 5 Spark API tutorial.

Refer to Tutorial 3 Clarifei API tutorial.