University of Washington   January 21, 2015
Department of Computer Science and Engineering
CSEP 590B, Winter 2015

CSEP 590B, Assignment 3, Due Wednesday, January 28, 6:30 pm

Part A: Make a form on dhis2 to collect monthly Dengue Fever patient cases. The form should have fields to collect suspected cases, confirmed cases and follow-ups. After making the form, do data entry with random numbers between 0 and 100. Do data entry for 5 adjacent provinces (e.g. Port Loko, Tonkolili, Bombali, Koinadugu, Kono) for time period of July to December 2014. Plot a graph, using dhis2 Data Visualizer, to show last month's cases across provinces and a graph showing temporal trend of province that has highest case average. Make a map, using dhis2 GIS module, to show the geographical spread of most concerning fever. Export these graphs in pdf for submission as demo instance of dhis2 refreshes every night. Follow these steps:

1) Create a Data Element for all the fields
2) Create a Data Set with all the data elements in it
3) Assign the Data Set to the provinces
4) Go to Data Entry page to enter the data
5) Go to 'Analytics and data mart table management' page through Apps-> Reports-> 'Analytics and Data Mart' option. Click on 'Start export' button with only 'Analytic tables update' checkbox checked.
6) Go to Data Visualizer and select relevant data elements, organization units and periods from left panel
7) Select layout from top bar to configure the x-axis and y-axis of the chart
8) To create the map, open GIS module and edit thematic layer by selecting 1 on top left side of the page.

Part B: Plot a bar chart graph using dhis2 Visualizer chart plugin. Graph should have provinces on x-axis and cases on y-axis. Plot data of 'Measles new' data element for the time period of 2014 year. Calculate the threshold line with formula mean + standard deviation using 2014 year data for all provinces. Draw this threshold by setting target line value of the chart. Follow these steps:

1) Find the id of 'Measles new' data element using https://apps.dhis2.org/demo/api/resources.
2) Follow following documentation to draw the chart in html/javascript using dhis2 plugin. Draw the chart using full configuration instead of referring to an existing chart.
https://www.dhis2.org/doc/snapshot/en/developer/html/ch01s18.html#d5e2282
3) You need to submit the html file that draws the mentioned chart.
4) Your chart should look like this:

2014

◼ Measles new — Threshold (958)
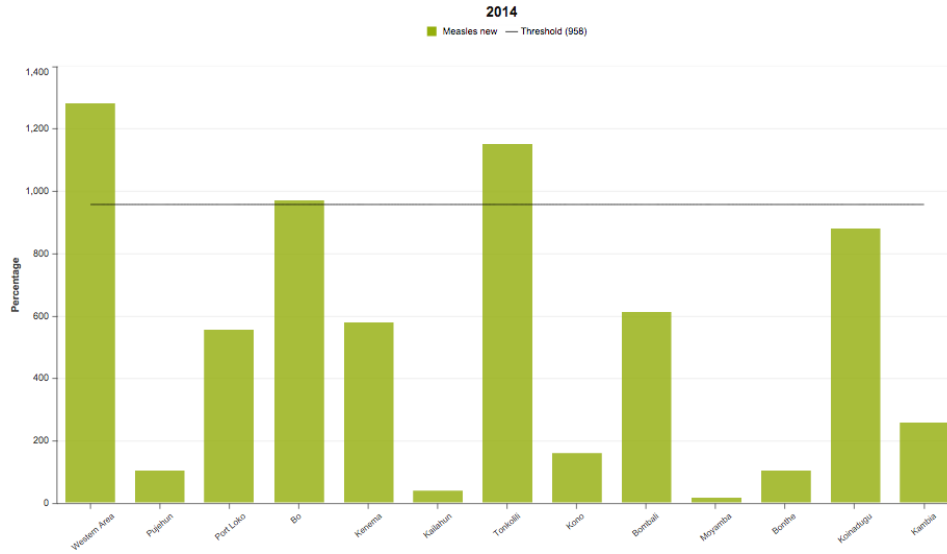
Submit pdf exports of charts and maps from dhis2 for part A. Submit html file and/or javascript file for part B. If you have any question then send it directly to fahadp@cs.washington.edu. Submission is due at 6:30 PM on Wednesday, January 28.