# **Data Science and Data Visualization**

# **Lab 2 –D3.js – Scales**

Reference:

D3: <https://d3js.org/>

D3 tutorials: <https://github.com/d3/d3/wiki/Tutorials>

D3 scale and color: <https://github.com/d3/d3-scale-chromatic>   
<https://www.d3indepth.com/scales/>

Color maps: <https://roadtolarissa.com/coloring-maps/>

Instructions

* Use ONLY D3 library
* Read chapter 7 and 8 of the Interactive Data Visualization for the Web
* Submit your work (all html, js, css files) to the blackboard assigment for this lab by the end of the week (12/4/2020)

Details

**Info**

Create an HTML web page with the title “Lab 3”. It contains the following text:

* Your name
* Your student ID
* The course tile “Data science and data visualization”
* The lab title “Lab 3 –D3.js - scales”
* The text “This is all my own work. I did not copy the code from any other source”

**Scatterplot – population vs GRPD**

In the same web page, draw a scatterplot chart to show the relationship between the population and the GRPD (GRDP - Gross Regional Domestic Product) of provinces

* Add a svg canvas of size 300 x 600 pixels
* Read a csv file using d3

d3.csv("https://tungth.github.io/data/vn-provinces-data.csv", rowConverter, function(error, data) {

if (error) {

console.log(error);

}

else {

console.log(data);

// your code to handle the data and draw charts

}

}

* a) Shows the population and the GRPD-VND (unit million VND/person/year) of each province. The population should be encoded with x-position, and the GRPD-VND should be encoded with y-position.
* b) Show each data point as a circle with its area proportional to the area of the province.
* c) Show axis with name of the axis and ticks for the chart
* d) Color each data point based on the density of each province (use discrete colors scale)