# **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 assignment for this lab

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)