**CYT245 Assignment 7. Seeing VERIS in Action**

**For this assignment you have 2 options:**

**Option 1. Python-based solution**

**Individual work**

**This Assignment is based on materials from Chapter 7 of the book “Data-Driven Security”. We are able to run only one listing 7-2 which is written in Python. But you should work on the materials provided in the Chapter and complete the following tasks.**

**Objective: Learn introduction to VERIS TI in incident management**

**Your tasks**

**Task 1**

* **Familiarize yourself with VERIS components (data collection framework, VCDB, and DBIR)**
* **Sign up and have access to DEBIR 2023 report, go to the link**
  + [**https://www.verizon.com/business/resources/reports/dbir/**](https://www.verizon.com/business/resources/reports/dbir/)
  + Or take the report attached to the weekly materials.
* **Review the section 3. Incident Classification Pattern**
* **Write your comments to DEBIR and this section (minimum number of words 500). Outline the following:**
  + **What is understood by the incident pattern?**
  + **What are current incident patterns?**
  + **Comment the figure 26.**
  + **Give exact sample of the content for at least one pattern.**

**Task 2**

* **Open book.rar file the same way as you did for Assignment 1 and find Listing 7-2, in the python folder, chapter 7 (ch7).**
* **Run Listing 7-2. You will obtain access to VCDB.**
* **See the result of implementing the script.**
* **Make required screenshots, meaningful comments,**
* **Compose MS Word document and upload to BB.**

**Option 2. R-based option**

**Team work – not more than 2 people.**

**To begin with, it’s all the same. The Assignment is based on materials from Chapter 7 of the book “Data-Driven Security”.**

**Task 1. The same as for the paper-based version**

**Task 2.**

The difference with the paper-based version is that you are supposed to run R scripts which are present in the text. To do this, your tasks are:

Step1. Install R

There are more sources to download and install R libraries. You may use instruction and scripts provided in the Chapter 2 “Setting Up Your R Environment”.

Note, that the Data Frame paradigm is the same for both Pandas and R.

Step2. Set R environment and Load required libraries

To do that, run the Listing 7-3 and Listing 7-4 from Chapter 7.

Step 3. Run R code

In the section “Working with VCDB data” you see the example of R scripts working with VCDB data to perform analysis of the incidents. It is implemented as the workflow to run the scripts from Listing 7-5 to Listing 7-11.

Note, that actually the code in these Listings is present by just a few lines, which you can run via the terminal.

If you are lucky enough, at the end you see the visualization of your results.

Make screenshots from each step, include meaningful comments.

Compose MS Word document and upload to BB.

**Submission Upload Requirements**

Make online submission to BB, only one submission from your team.

If you have more than one document, wrap it up to ZIP, 7ZIP, or RAR folder

Name the file you will uploading as indicated below. The name must include:

* Course ID (CYT245)
* Section
* What is this (e.g. lab1, assignment 1, etc )
* Authors by name(s)

**Sample: CYT245Lab1\_PeterJohn**

**Note: submissions that do not follow the requirements will not be accepted**