**Group Project (20%) – R Web Apps Using Shiny**

**Due date 24 January 2022 (Week 14)**

This objective of this project is to give an opportunity for students to:

1. Apply the whole data science processes into one complete work.
2. Show an understanding of problems that can be solved using data science.
3. Apply Design Thinking to improve the data science process or workflow.
4. Showcase data product.
5. Work together as a team.

**Instruction**

Form a group that consist of **FIVE** **(5)** members.

Brainstorm to come up with ideas on a useful web apps for your group based on the domain listed below.

Domain areas that you can work on are as follows: -

* Domain Education (Higher Education)
* Government Sector
* Health Care
* Tourism
* Environmental
* E-Commerce
* Others (please specify)

Expectation for this project is for you to do descriptive analysis or exploratory analysis. If you feel comfortable with inferential analysis and predictive analysis, you may proceed with that.

The Shiny application in question is entirely up to you, but it must be useful and beneficial for people. However, if you are having trouble coming up with the ideas, you may browse the Shiny gallery at <https://shiny.rstudio.com/gallery/>

This project has **THREE** (3) parts:

1. You will apply Design Thinking in your project.

Start by watching this video “Design Thinking for Data Scientist” <https://www.youtube.com/watch?v=bOJlAKKF3eY>

1. You will create a Shiny application and deploy it on Rstudio’s servers.
2. You will use Rstudio Presenter or Slidify ONLY (NOT power point presentation) to prepare a reproducible pitch presentation about your application.

**Shiny** is an R package that makes it easy to build interactive web apps straight from R.

**Your Shiny Application**

1. Write a shiny application with associated supporting documentation.
2. Deploy the application on Rstudio’s shiny server.
3. Share the application link by pasting it into the provided text box.
4. Share your server.R and ui.R code on GitHub.

The application must include the following:

1. Some form of input (widget: textbox, radio button, checkbox, etc.)
2. Some operation on the ui input in server.R
3. Some reactive output displayed as a result of server calculations.
4. You must also include enough documentation so that a novice user could use your application.
5. The documentation should be at the Shiny website itself. Do not post to an external link.

**Your Reproducible Pitch Presentation**

All right, you have made your Shiny app, now it is time to make your pitch. You get 5 slides (inclusive of the title slide) to pitch your app. You are going to create a web page using Slidify or Rstudio Presenter with an html5 slide deck.

Here’s what you need.

1. 5 slides to pitch your idea done in Rstudio Presenter or Slidify.
2. Your presentation pushed to Rpubs.
3. A link to your Rpubs presentation pasted into Spectrum submission page.

Your presentation must satisfy the following:

* It must be done in Rstudio Presenter or Slidify.
* It must be 5 pages
* It must be hosted on Rpubs.

Since we are in the online mode this semester, you need to prepare a video (max 5 minutes) presentation. Choose **ONE** best presenter among your group members to make the pitch.

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