

RYERSON UNIVERSITY

CIND-110

DATA ORGANIZATION
FOR DATA ANALYSTS

Assignment II
**On Simple/Complex
SQL Retrieval Queries**

Due: Wednesday, November 18, 2020, 11:59 PM

This assignment counts for 10% of the final grade

1. The aim of this assignment is to create simple or complex queries to retrieve and modify data using the CompanyDB dataset which can be found on the course shell, under 'Assignment 2' tab.
2. On your machine, make sure that MySQL service is running and active, by checking the MySQL status using the first command. If the service is inactive, restart it with the second command.

```
1 sudo service mysql status
2 sudo service mysql restart
```

3. On MySQL Workbench, download then run the CompanyDB SQL file using the SQL Editor panel.
4. Download the R Markdown script (A2_F20_Q.rmd) from the course shell to start working on your assignment.
5. Here is a set of guidelines to install R-tool on Ubuntu:
 - (a) Press Ctrl+Alt+T to open the Terminal
 - (b) Type and Execute the following commands.

```
1 sudo apt-get update
2 sudo apt-get install r-base
```

6. It is recommended to download/install a user-friendly interface for R. For Ubuntu, you may use RStudio-IDE. Following is a set of guidelines to install RStudio-IDE on Ubuntu:
 - (a) Go to RStudio IDE: <https://www.rstudio.com/products/rstudio/>
 - (b) Click Download RStudio Desktop, by clicking the download link recommended for Ubuntu.
 - (c) Run the downloaded file (double click the file) to start the setup wizard, click "Next" until "Finish"
 - (d) To open RStudio IDE, search for RStudio in the Ubuntu dash.

7. You might need to install the following two R packages, if they are not installed on RStudio: *rmarkdown*¹ and *RMySQL*². You can use the following commands on the R-shell to install these packages.

```
1 install.packages("rmarkdown")
2 install.packages("RMySQL")
```

8. Now open A2_F20_Q.rmd file in RStudio environment and start answering the questions.
9. After modifying the script by writing the required queries, execute the script, by clicking on ****RUN ALL**** button. Next, click the ****Knit**** button to generate a technical report either in PDF, DOCX, or in HTML format. The technical report should include both (i) the content of the script and (ii) the output of the embedded R code chunks.
10. **SUBMIT** both the modified script (A2_F20_Q.rmd) and the generated technical report (either in PDF, DOCX or HTML format)

References:

RStudio Team (2020). RStudio: Integrated Development for R. RStudio, PBC, Boston, MA

¹<https://cran.r-project.org/web/packages/rmarkdown/index.html>

²<https://cran.r-project.org/web/packages/RMySQL/index.html>