CONSTANTIA
Insurance Company Limited

# Constantia Insurance Data Science Assessment

This assessment is created to test your basic understanding of the following concepts:

- Basic database knowledge
- Basic SQL query knowledge
- Fundamental understanding of software development principles
- Basic Python script writing

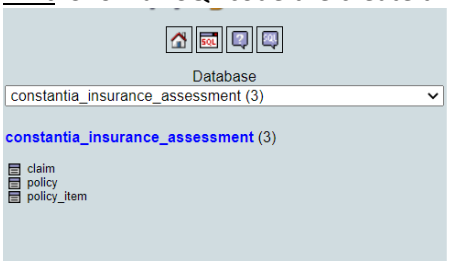
We require that you create a Github account with all scripts you will be creating during the course of this assessment, once completed we require that you share your Github repository link with us(Ensure your repository is Public).

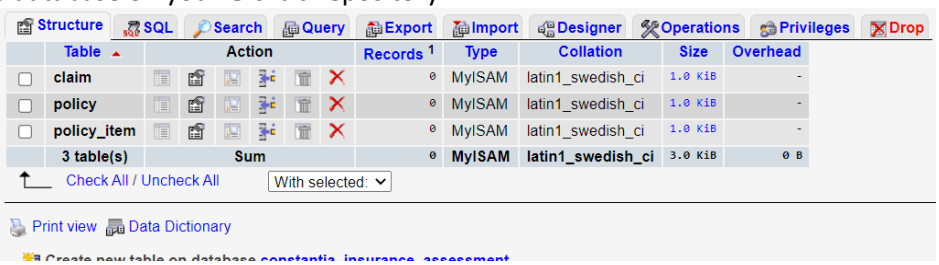
- **NB: PLEASE NOTE THAT WE WILL NEED TO SEE ALL THE SCRIPTS YOU HAVE WRITTEN on your Git repository(Hint: This includes creating the database, tables and script etc)**

## Question 1

Download a Postgres or MySQL database engine and create a database called ***'Constantia Insurance Assessment'***.

**Hint**: Show all SQL code the create the database on your **Github** repository




## Question 2

Create the ***'Constantia_Insurance_Assessment'*** database with the relevant tables as per ERD below.

**Hint**: Ensure you follow all referential integrity rules implied in the ERD and show all necessary scripts

## Question 3

**Import the spreadsheet attached to the tables created – you are welcome to use any method to import the data.**

**Note: *Question 3 which is a BONUS question requires a python script to import the data.***

**Hint**: Show all SQL query code(script) on your **Github** repository

Query the following information:

a. Create a SELECT statement to show all policies that were incepted after the 21st of July 2021

b. Create a VIEW with all claims and corresponding policy numbers and policy holder name

| Policy Number | Policy Holder Name | Claim Number |
|---|---|---|
| 1234 | Charles Xavier | 1234/1 |
| 5634 | Jean Grey | 5634/1 |
| 1234 | Charles Xavier | 1234/2 |

c. Create a VIEW with all policyholder names and the sum insured. As per the example below

| Policy Number | Policy Holder Name | Sum Insured |
|---|---|---|
| 1234 | Charles Xavier | 20000 |
| 5634 | Jean Grey | 15000 |
| | | |

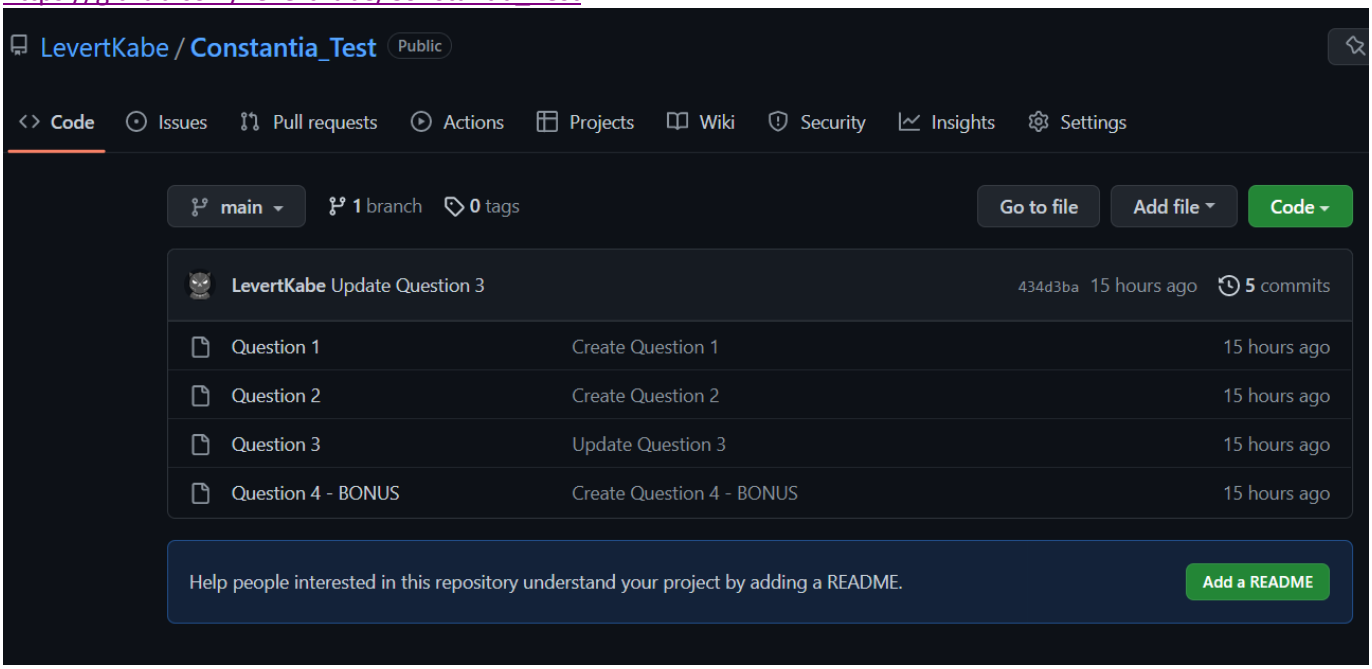
## Question 4 - BONUS

Create a python script that does the following

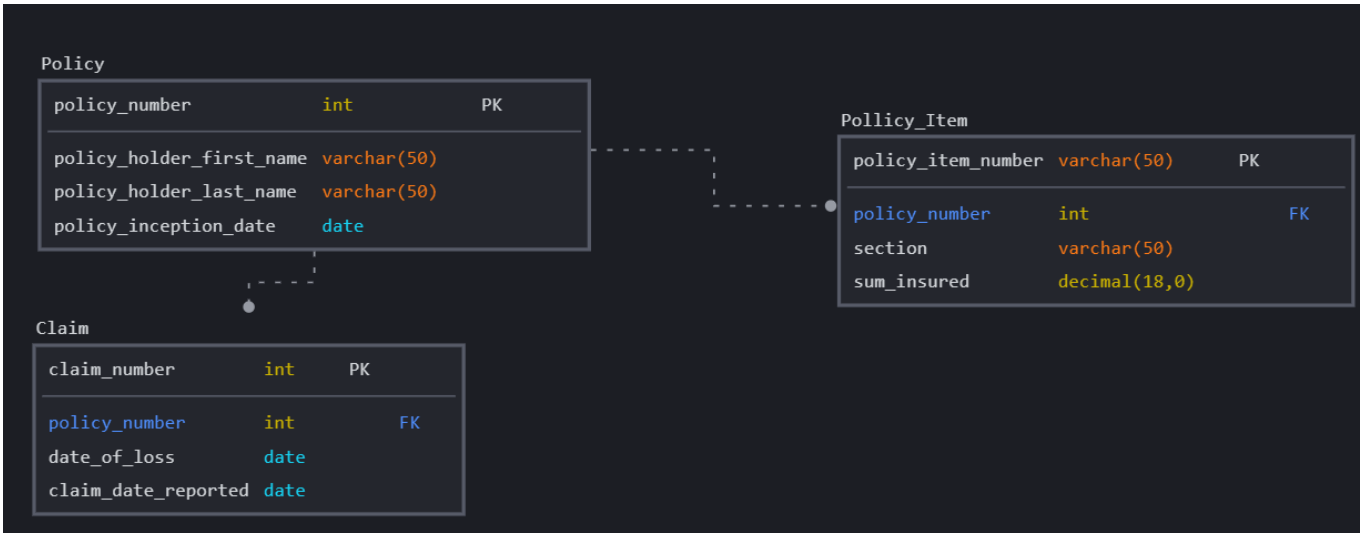
d. Read in data from the attached excel spreadsheet
e. Insert the data from the excel spreadsheet into the database you have created on your PC
f. Calculate the average Sum Insured of all policies and print it out on the Terminal screen

## Appendix

Desired Test folder submission structured on Github, you welcome to clone or fork the project, link: https://github.com/LevertKabe/Constantia_Test




***ERD Diagram***




*Good luck to all! 🤗, remember that your effort is what matters most – not whether you are right or not!*