



# BI DEVELOPER CASE STUDY

## Context

The next step in the process is a case study. The goal of the case study is to give us an opportunity to do some real work together and for you to demonstrate the application of your BI and analytical skills. It's also an opportunity for us to get a feeling for what it would be like to work with you, and equally for you to try us on for size and see if Pargo is a team that you would like to join.

## How it will work

Create a fork of [this repository](#) in your own GitHub account. Prepare the outputs as outlined in the brief below along with any collateral you deem necessary, and load all files to your repository. Once complete, please send a link to your repository to [rhys.stevenson@pargo.co.za](mailto:rhys.stevenson@pargo.co.za) and cc: [elrika.ferreira@pargo.co.za](mailto:elrika.ferreira@pargo.co.za) **by midnight Sunday, 22 March**. Late submissions will not be accepted.

We will then schedule a 1 hour call with you on Tuesday 24 March to take us through your thinking and discuss some additional questions. The session will be interactive and we'll ask some questions that will require you to write queries and return results in the session. Please have your database accessible and ready to query.

We expect you to do as best you can in a reasonable amount of time. Where further work would be required, simply state that and what it would be. If you reach a dead end, then again, simply state it and we can use some of our time together to problem-solve. Feel free to contact us if you feel some detail or knowledge might help.

## The Brief

### Step1: Create and Load

#### *Task*

Use the [excel provided](#) as your data source. Create a database to store the data in any preferred data model. Assume this data needs to be optimised for OLAP, and that there

are actually millions of records per table provided. You can use any database of your choice (MSSQL / MySQL / Postgres).

### *Output*

1. Provide layman's steps for what you did in a text doc
2. SQL Scripts used to create and load data to your database table(s)
3. CSV copies of the table (if denormalised) or tables (if normalised)

## **Step 2: Validation**

### *Task*

Write SQL Scripts to validate the data loaded. Identify missing/invalid/strange data

### *Output*

1. Provide the SQL Scripts you wrote.
2. CSVs of the dirty data

## **Stage 3: Data viz**

### *Task*

Using Tableau public (<https://public.tableau.com>) create a dashboard that connects to your database. Assume this dashboard is an executive dashboard. Showcase what you believe is relevant and interesting to the executive team. The final product will be assessed on quality, not only functionality. Show us what the new standard for Pargo dashboards will be!

### *Output*

Save your dashboard to Tableau Public. Provide the details of your profile and the Viz you saved.

If you require additional info, feel free to email me at [rhys.stevenson@pargo.co.za](mailto:rhys.stevenson@pargo.co.za). On completion, please email the link pdf presentation along with any other files you deem necessary to **by midnight Sunday, 22 March**. Please note that we would like to fill the position as soon as possible, and thus **late submissions will not be considered**, and earlier submissions are welcome.