

DATA ENGINEER OR DATA ARCHITECT CHALLENGE

BI TEAM

Hello! Thank you for your interest in Loadsmart. We appreciate your interest in our company and are excited that you have decided to move on to this step! We hope you find it challenging and fun, and we're looking forward to connecting with you to discuss the results.

The challenge will allow us to learn more about your technical skills. We will use your results along with other dimensions when considering your suitability for the position. This is not the only factor we will be looking at regarding your candidacy. If, for any reason, you are not able to complete the entire challenge, whatever progress you make will be taken into consideration with the broader picture. Please make as much progress as you can and we'll go through Q&A in the technical interview.

You will have up to five days to complete the challenge and send it back to us. **Please be sure you've confirmed the due date with the representative who sent you the challenge.**

Once you feel your challenge is complete, send your results via email to the representative who sent it to you. Please make the subject of the email "YOUR FULL NAME - Data Challenge".

Good luck, and have fun!

We have attached a data set for you to work with. **Please look for the csv file attached to the email.**

Here's what we ask you to do:

1. **Build a dimensional data model** in a database of your choosing, so it can hold the data set we sent you and make data analysis available through SQL.
2. **Load the data from** the data set to the database model you've created, using any open source ETL tool or language you want, but **Python is preferred and is a great plus!**
3. **Provide a visual analysis** so you can make a proof of concept of how your data model works, and how we can use it, for a **self-service** data analysis. You can use any tool you want, but you will have a plus in case of Tableau or Power BI.

Here's what you'll need to deliver:

1. The scripts used for **creating** the data model on the database, with any specific instructions needed for us to reproduce it.
2. The scripts used for **loading** the data to the mode, with any specific instructions needed for us to reproduce it.
3. The resulting **dashboard/data set** that you used for the proof of concept of your solution.

The table headers may be a little confusing since you don't have a complete understanding of our language in the transportation business, so please do your best to review and make assumptions. Unfortunately, we will not be able

to answer questions about the challenge while you are doing it, but we encourage you to write them down so we can discuss during the review portion of the interview.

We hope you enjoy working on this project!

Thank you,

Loadsmart Team.