Developer Technical Test

Introduction   
Welcome to the Developer Technical Test

We hope that you find this exercise fun and interesting. There are no trick questions; we want to see your solution to a simple problem with well thought-out and structured code. We realise that there are a lot of topics in the brief and that you may not have the experience or time to complete them all. There is no time limit on how long you spend on the test, however this is not intended to be too large a task.

# The Brief

Our product team would like you to develop a new call detail record (CDR) business intelligence platform. The idea behind it is that the call records can be queried to find information such as average call cost, longest calls, average number of calls in a given time period.

For this technical test we would like you to create a CDR API. This means that a front-end user interface is not required, neither is any consideration of any services which you might expect to be shared such as authentication. A CDR will be provided as a comma separated value file; these files are delivered as often as daily and can be very large (gigabytes), so being able to simply upload new files to database is a must. Between 5 to 8 endpoints demonstrating a variety of insights (i.e. not all averages, max, mins), in addition to the CDR upload will be sufficient.

We’d like you to consider what API methods would be useful to other teams writing calling code, how can you make the API easy to use, is each method doing what someone else would expect it to do? Your design should have testing and maintainability at its core, and you should consider what testing is appropriate.

The expectation from the product team is that we produce a fully working system as soon as possible, then continue to add features. We hope that you will think about this expectation as you work.

# The Deliverable

Ensure you include the following in your README.md:

1. A covering note explaining the technology choices you have made.
2. Any assumptions you’ve made and why
3. Are there any other considerations/future enhancements you would make given more time?
4. For bonus points, can you deploy your working API? (Advanced)

We expect you to treat this project like you’re working as part of a team, and your git etiquette should reflect this. Preferably email as an attachment or include a link to the git bundled repository showing your commit history with all your commits on the master branch:

git bundle create tech-test.bundle --all —branches

We will also accept a zipped solution if a git bundle can’t be provided

# The Data

|  |  |  |
| --- | --- | --- |
| **Column** | **Description** | **Notes** |
| caller\_id | Phone number of the caller |  |
| recipient | Phone number of the number dialled |  |
| call\_date | Date on which the call was made |  |
| end\_time | Time when the call ended |  |
| duration | Duration of the call | Seconds |
| cost | The billable cost of the call | To 3 decimal places (decipence) |
| reference | Unique reference for the call |  |
| currency | Currency for the cost | ISO alpha-3 |

See separate file techtest\_cdr.csv