

## ABSTRACT

The aim of this project is to create a simple statistics engine capable of interrogating a flights database and displaying those results in an acceptable manner on a simple front end.

## BRIEF

At its heart, the Travelogix Analytix system has a MySQL database populated with travel booking details from numerous Travel Management Companies (TMCs).

This data is supplied to us in the form of CSVs in a standard format, which is then parsed and injected into the database. The Analytix system then uses a collection of PHP classes to read this database and generate reports for the end user.

There are two sections for this task:

### PART 1

We would like you to write a small PHP script that has the ability to parse the three CSV files that have been supplied (AIR.csv, HEAD.csv, INV.csv) and inject the data into a MySQL database (structure supplied) into the three tables that have also been supplied (HEAD, AIR, INV).

The field names at the top of each CSV should match up with the field names of the MySQL tables, however, you will notice that the AIR table has some additional fields matching those from the HEAD and INV files. It is up to you to work out how to populate those fields.

#### **The structure of the database and the feed files cannot be changed.**

The three files are relational. In each of the files there is a pax\_id and booking\_id that link the three files together. The AIR.csv and the INV.csv also have a transaction\_id and a inv\_num that link these files further.

The anatomy of a booking is as follows:

A passenger (known in the industry as a PAX) can have one or more bookings. The passenger will have a unique pax\_id.

Each booking can belong to one pax only. Each booking will have a unique booking\_id for that passenger.

Each booking will have one or more transactions. Each transaction will have a unique tran\_id for that booking. A transaction can belong to one booking only.



You will notice that there will be more records in the INV and HEAD files than in the AIR file. This is perfectly normal. Just load all of the data into the database.

Summary:

- Write a single PHP script that can be ran against each of the CSV files to inject their data into the correct table.
- Insert into the AIR table the missing fields with data supplied from the INV.csv and HEAD.csv files.

## PART 2

Develop a simple front end that has the ability to gather statistics about the data that is in the database.

The statistics can be displayed in any way what you wish (simple HTML table, JavaScript powered graphs etc.). We are not expecting this part of the system to be especially good-looking, as we are more interested in seeing if you are able to manipulate the underlying data in order to gather intelligence.

Examples of the types of statistics that could be obtained from the data include, but not limited to:

- Average flight fare cost;
- Most common destinations;
- Spend per Flight Operator;
- Top spending account codes;

## PART 3

Write and supply a short document explaining how you went about the planning and implementation of this project. Please tell us what problems you faced, how you over came them and what help (if any) you sought. Also please explain any parts of your code that are complicated (we would like to see your thought process).

We would also like to see the source code for the project. This can be supplied to us any way you wish (GitHub, Email etc.)