

## DATA TECHNICIAN APPRENTICESHIP

### LEVEL 3

#### MOCK DEMONSTRATION 1 - DATA GATHERING DEMONSTRATION

#### ASSESSMENT TIME ALLOWED 45 MINUTES

**(Please note that the demonstration element should take about 30-35 minutes, the questions will be asked at the end of the demonstration)**

**Assessment title – AirBnB Analysis, Queens, New York**

#### Scenario

A friend of your lives in Sunnyside, Queens, New York and is considering renting her property and returning to the UK. The property that your friend owns is an apartment, that will accommodate up to 4 people. She has been sent two files from AirBnB.

File 1 – Sunnyside AirBnB.csv contains the AirBnB properties currently available in the local area.

File 2 – Host Reviews.txt contains a summary of the customer review ratings for a range of properties including the Sunnyside properties.

Your task is to review these files and merge these datasets to help your friend decide what price she could charge for her property.

## Tasks:

- 1) Create a new folder called “Evidence” on your desktop, and then download the scenario demonstration documents and save into this folder ready to manipulate as required. [S1, S2, K2].
  - “Host Reviews.txt”
  - “Sunnyside AirBnB.csv”
  - “SD1 – Mock Assessment.pdf” (this document)
- 2) Create a Word document called “Summary report” and save in your evidence folder. Audit the relationship between the datasets, and summarise in the report [S3].
- 3) Blend the different datasets into a spreadsheet tool of your choice, keeping the datasets separated out into worksheets. Ensure each worksheet is named the same as the original filenames. Save this workbook as “Combined data”. [S2, S4, K6]
- 4) In the “Sunnyside AirBnB” dataset, move the host id to be the first column and sort this column numerically. [S5, K3].
- 5) Using a linking technique, pull the data from the “Host Reviews” dataset into the “Sunnyside AirBnB” dataset. Do not use copy and paste for this task. [S5, K6]
- 6) Delete the columns “neighbourhood group” and “neighbourhood” as they are not required. [S16, K3]
- 7) Filter and Highlight the “construction years” for property that were built before 2013. Highlight the rows a blue colour. [S5, K3]
- 8) Create a new column on the right of the monthly service fee and calculate and record the annual service fee. Format this new column with USA currency. [S5, K3]
- 9) Analyse the review ratings with a number 4 and the room type is entire home/Apartment and record the price per night. Illustrate your findings with a graph or chart. [S6]
- 10) Calculate the average price per night for entire homes/Apartments with a review rating of 4, and record this in your summary report, making a recommendation on the price that should be charged. [S6]

**End of Scenario demonstration instructions [this will need to be seen by the assessor]**

- ~~Upload your evidence folder into the SharePoint live folder.~~
- ~~Delete any downloaded files and the evidence folder on your desktop.~~
- ~~Delete these files from your own recycle bin.~~
- ~~Tear up any notes you have made during this assessment.~~

## REFERENCE

### Skills KSBs evidenced in this assessment:

KSB	Description
S1	Source and migrate data from already identified different sources
S2	Collect, format and save datasets
S3	Summarise and explain gathered data
S4	Blend data sets from multiple sources and present in format appropriate to the task
S5	Manipulate and link different data sets as required
S6	Use tools and techniques to identify trends and patterns in data
S16	Clean data i.e. remove duplicates, typos, duplicate entries, out of date data, parse data (e.g. format telephone numbers according to a national standard) and test and assess confidence in the data and its integrity.

### Knowledge KSBs evidenced in this assessment:

KSB	Description
K2	How to access and extract data from a range of already identified sources
K3	How to collate and format data in line with industry standards
K6	How to undertake blending of data from multiple sources*

### Behaviours KSBs evidenced in this assessment:

KSB	Description
B2	Work independently and take responsibility
B3	Use own initiative
B4	A thorough and organised approach