

Developer Assessment 2 – Hotel Bookings reporting

Brief

You've been asked to join a team working on a data analysis project. The project is to explore hotel booking data and provide reports on upcoming bookings.

Requirements

In order to create a minimum viable product, the following is required:

- A command line argument (or graphical selection window) to select the data file at execution time.
- A second command line argument (or other input method) that takes a date in 'YYYY-MM-DD' format.
- Read in the data file to a table.
- Given the above date in 'YYYY-MM-DD' format, will present on screen (to the command line) the details of all bookings that are currently in use at that date (that is, those that have already begun but have not yet finished), or will begin in the next 7 days from this date. Bear in mind that some bookings are marked as 'is_cancelled', and these should not be included.
- Save the above output to file in CSV format.
- Present the total numbers of adults, children, and babies expected to be in residence per day over the next 7 days.
- Save the above output to a second file in CSV format.

We would like you to write a program that covers these points using any appropriate language or framework. Your code should be easily understood and well structured, with a focus on ease of maintenance and future extensibility. The code must come with documentation and it should include a section about how to execute the project.

Dataset

Please use the 'Hotel booking demand' dataset available at <https://www.kaggle.com/jessemostipak/hotel-booking-demand/download>. Note that you can select the "Skip & continue download" option to download the dataset without creating an account. Further metadata, including column explanations, are available at <https://www.kaggle.com/jessemostipak/hotel-booking-demand>.

Delivery

Please email Roberto.Santos@nottingham.ac.uk by the **29th of October, 11pm** with either:

- details on where to find your code
 - e.g. the URL to a public GitHub repository or some similar service
 - A private repository on GitHub, adding **spco**, **dcl10** and **py5gol** as collaborators.
- an attached zip file containing your code