Project PEACH is a large scale open source community driven Data Science project by the Computer Science Department at University College London. The goal of Project PEACH is to provide a data science tool for medical professionals and researchers that can aid them in diagnostic and analytics processes through the use of big data, machine learning and data visualisation. https://code-4-health.org/peach

Project Supervisors: Dr. Dean Mohamedally, Dr. Atia Rafiq, Marios Constantinides, George Spithourakis
Team Members: Nikolaos Georgiadis, Narmin Huseynli, Efthymia Kazakou, Johann Kristthorsson, Mahalakshmi Sabapathi, Siri Vinay, Stephen Whelan
Project Contact: Stephen Whelan (Lead Architect, Template 1), stephen.whelan.15@ucl.ac.uk

The following document is a description of the file structure for the Atmospheric Factors data set.

PEACH_atmosphericFactorsLog.csv - (comma delimited)

In theory, there would be a mobile application that users can use to monitor and receive alerts regarding UV radiation, pollen and and pollution. The user clicks a button everyday that they feel a negative reaction (i.e. coughing, watering eyes, etc.) towards atmospheric factors. The application records these negative feedbacks and learns over time the user's sensitivity levels to the factors. It will then be able to send the user alerts when current conditions are at a level the user is sensitive too.

File Structure

Field	Values	Description
UserId	Integer	This field is a user's unique Id. Each user maintains their unique Id throughout all data sets in Project PEACH.
DateTime	DateTime (YYYYMMDD)	This field is the date the feedback was recorded by the user.
Atmospheric factor	String	This field is the name of the atmospheric factor. The factors are as follows {UV radiation, pollen count, air quality}
Exposure	Integer	This field is the current level of the atmospheric factor (e.g 3). **UV Radiation levels**: Low = 1 Moderate = 2 High = 3 Very High = 4

		Extreme = 5
		Pollen count levels: Low = 1 Medium-low = 2 Medium = 3 Medium-high = 4 High = 5 **Air quality levels**: Good = 1 Moderate = 2 Unhealthy = 3 Very Unhealthy = 4 Air quality is a score that takes into consideration the following factors: {nitrogen_dioxide, oxides_of_nitrogen, ozone, pm10, pm25, sulphur_dioxide, nitrix_oxide}
Feedback	Integer	This field is the user's feedback. 0 = Positive Feedback (user had no reaction to current conditions) 1 = Negative Feedback (user had negative reaction to current conditions)