

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>

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The following document is a description of the file structure for the IoT data sets.

PEACH_bodyTempLog.csv - (comma delimited)

This file simulates the tracking of a user's body temperature by an IoT devices. The device records and logs "abnormal" temperatures only. The device has defined an "abnormal" temperature as a temperature more than two positive standard deviations from a mean body temperature of 98.6 degrees. The standard deviation value is .5 degrees

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 abnormal body temperature was recorded by the device.
Body_Temperature	Decimal	This field is the recorded body temperature.

PEACH_heartRateLog.csv - (comma delimited)

This file simulates the tracking of a user's heart rate by an IoT device. The device records and logs large increases in heart rate. The device will record an average heart rate achieved over the duration of the event.

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 HH:MM:SS)	This field is the date and time the increased heart rate was recorded by the device.
Age_Group_Heart_Rate	Integer	This field is the medically defined resting heart rate of the user's age group. The range is defined as follows: 25 and under = 70 between 26-35 = 73 between 36-45 = 75 over 45 = 77
User_Resting_Heart_Rate	Integer	This field is the user's resting heart rate.
Increased_Heart_Rate	Decimal	This field is the recorded increased heart rate.
Duration_of_Increased_Heart_Rate	Integer	This field is the length of time in minutes the user had the increased heart rate.

PEACH_sleepQualityLog.csv - (comma delimited)

This file simulates the sleep monitoring of a user by an IoT device. The system defines sleep quality in a scale from 0 to 5 where 2.5 defines an average quality of sleep score.

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 sleep quality score was recorded.
Sleep_Quality_Value	Integer	This field is the sleep quality score. It is a value between 0 and 5. The average score is 2.5. Scores above 2.5 imply a better than average quality of sleep. Scores under 2.5 imply a worse than average quality of sleep.