# Bayesian Hospital - Documentation

## Team

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## Platform

We have used BigQuery from Google Cloud Platform to manage and process MIMIC's data. Some links that may be useful

- MIMIC's documentation: https://mimic.physionet.org/
- MIMIC's databse schema https://mit-lcp.github.io/mimic-schema-spy/
- Code repository: https://github.com/MIT-LCP/mimic-code
- Visualization tool: http://hdsl.uwaterloo.ca/visualization-tool/

## Uploading data to Big Query

The best way to upload data si following step by step the tutorial from MIMIC' github repository https://github.com/MIT-LCP/mimic-code/tree/master/buildmimic/bigquery

**Important**: Call your BQ Dataset **MIMIC3_V1_4** so that the rest of the scripts are compatible.

## Connect to BigQuery via R

For this you can use the 'BQ connection example.R' file. First time you use it, it asks you for your google authorization and saves a file in your disk to remember it. **Note**: If you

use any type of code repository, be careful to ignore this file, otherwise you will upload your credentials to your repository.

## Build Tables

## Data Exploration App

For running this Shiny App, you just need to open and run the RStudio project in the folder 'exploration-app'.

## Model Building

For building the models that will be later on used by the outflow-app, open the bayesian-hospital RStudio project in the main folder and then execute:

- 'model-building/data/final-data-retrieval.R' to save summarized data locally
- 'model-building/build_model.R' to build and save the models in 'model-building/model/'

## Outflow App