

# Minutes

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**Meeting Title:** kick off meeting

**Date:** 23/03/2022

## Introduction for team member

## Project overview

what is variability:

- same/similar patient get different treatments or recommendation from doctor
- variability may cause adverse effect...
- variability can in terms of : number of test in process, sequence of activity, time to transfer from one adm to another time spent on icu, cost, mortality...

## Background

- toyota example in manufacturing..
- increased variability associated worse outcome ->start concern
- hard to determine when variability happens
- hard to access data
- Analyze patient process ideally as sequence and figure out how to measure variability:
- same step can differ by the distance between two step...

## process mining

- we need create event log from MIMIC then generate variability matrix. if enough time create visualization on clinical variability(e.g. cluster)
- we aim to create a generic method can measure the clinical variability.
- analyze a specific disease e.g.(CABG..)

## Project Steps

### Demonstration on the MIMIC set

- using google cloud and we work on subset data then size of data not a problem
- year info is meaningless but for each patient we can analyze the time interval
- d\_labitem can merge with labevent by itemid. (same for other two)..- prescription may not really received by patient
- mimic\_derived can find its code in github