 UNIVERSITY OF LEEDS School of Computing	EXPERIMENT DOCUMENTATION	Date of experiment 17/05/2017
	Experiment title: Event log creation of cancer inpu tevents_cv	Experiment code M3C-INC001
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Area of investigation

This experiment is to create an event log of cancer patient records from the **inpu**tevents_cv table of the MIMIC-III database. The format is [case_id, activity, timestamp].

All patients who diagnosed with cancer-related diagnose code, at least once, will be included.

Data source

The **inpu**tevents_cv table in the MIMIC-III database. This table contains input data for patients from CareVue ICU database.

Research question

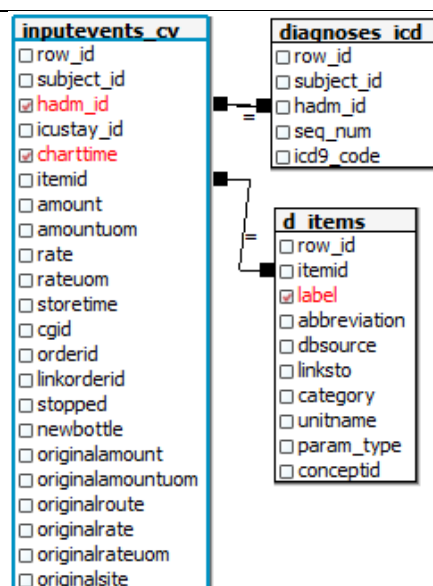
Is the **inpu**tevents_cv table in the MIMIC-III database can be used for process mining of cancer patient treatment?

Hypothesis

The **inpu**tevents_cv table can be used as it provides at least minimum requirements for process mining, which are case_id, activity, and timestamp.

Method

- 1) **Extract** the MIMIC-III database in PostgreSQL by selecting [hadm_id, d_item.label, charttime] of cancer patient admissions [icd9_codes 140x-239x].
case_id = subject_id/ hadm_id/icdustay_id
activity = d_item.label
timestamp = charttime/ storetime
- 2) Save as .csv file
- 3) **Load** into ProM



Results

This resulted in 2,503,583 rows.

	hadm_id integer	activity character varying(200)	charttime timestamp(0) without time zone
1	100006	.9% Normal Saline	2108-04-06 16:00:00
2	100006	.9% Normal Saline	2108-04-06 18:00:00
3	100006	.9% Normal Saline	2108-04-06 20:00:00
4	100006	.9% Normal Saline	2108-04-06 21:00:00
5	100006	.9% Normal Saline	2108-04-06 22:00:00
6	100006	.9% Normal Saline	2108-04-06 23:00:00
7	100006	.9% Normal Saline	2108-04-07 00:00:00
8	100006	.9% Normal Saline	2108-04-07 01:00:00
9	100006	.9% Normal Saline	2108-04-07 02:00:00
10	100006	.9% Normal Saline	2108-04-07 03:00:00
11	100006	.9% Normal Saline	2108-04-07 04:00:00
12	100006	.9% Normal Saline	2108-04-07 05:00:00

Discussion

The **inpu**tevents_cv table contains minimum required columns for process mining. The resulted event log would be loaded into ProM in the Stage 2.

Conclusion

Hypothesis proved. The **inpu**tevents_cv table can be used to create event logs.