

```
1 Looking at PhysioNet's MIMIC-Demo database of EHR data
2
3 https://physionet.org/content/mimic-iv-demo/2.2/
4
5 Distributed as CSV files, they recommend using SQLite, and particularly SqlLite
  explore
```

Entrée [

```
1
```

Entrée [3

```
1%%bash
```

```
2# download zip'ed version of db
```

```
3wget -N -q https://physionet.org/static/published-projects/mimic-iv-demo/mimic-iv
```

```
4unzip      mimic-iv-clinical-database-demo-2.2.zip
```

executed in 12.3s, finished 13:36:32 2023-09-10

```
Archive:  mimic-iv-clinical-database-demo-2.2.zip
  inflating: mimic-iv-clinical-database-demo-2.2/LICENSE.txt
  inflating: mimic-iv-clinical-database-demo-2.2/README.txt
  inflating: mimic-iv-clinical-database-demo-2.2/SHA256SUMS.txt
  inflating: mimic-iv-clinical-database-demo-2.2/demo_subject_id.csv
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/admissions.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/d_hcpcs.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagnoses.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/d_icd_procedures.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/d_labitems.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/drgcodes.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/emar.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/emar_detail.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/hcpcsevents.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/labevents.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/microbiologyevents.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/omr.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/patients.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/pharmacy.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/poe.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/poe_detail.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/prescriptions.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/procedures_icd.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/hosp/provider.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/services.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/hosp/transfers.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/caregiver.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/chartevents.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/d_items.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/datatimeevents.csv.gz
 extracting: mimic-iv-clinical-database-demo-2.2/icu/icustays.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/ingredientevents.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/inpuvents.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/outputevents.csv.gz
  inflating: mimic-iv-clinical-database-demo-2.2/icu/procedureevents.csv.gz
```

```
Entrée [4] 1# uncompress csv
2!find . -name "*.gz" -exec gunzip {} \;
```

executed in 896ms, finished 13:39:36 2023-09-10

```
Entrée [9] 1# Check for our ICD10 codes , and CPT codes
2!grep -c T8021 mimic-iv-clinical-database-demo-2.2/**/*.diag*.csv
3!grep -c catheter mimic-iv-clinical-database-demo-2.2/**/*.diag*.csv
```

executed in 369ms, finished 13:45:26 2023-09-10

```
mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv:1
mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagnoses.csv:17
mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv:0
mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagnoses.csv:272
```

```
Entrée [1] 1# looks like they're using ICD-9, and have the ICD-9 codes we want
2!echo "look for catheter"
3!grep -iw --color=yes catheter mimic-iv-clinical-database-demo-2.2/hosp/d_icd_dia
4!echo "look for icd10, without period"
5!egrep -i --color=yes ^T8021 mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagn
6
```

executed in 695ms, finished 14:12:31 2023-09-10

```
T83018S,10,"Breakdown (mechanical) of other urinary catheter, sequela"
T83098D,10,"Other mechanical complication of other urinary catheter, subsequent encounter"
T83518,10,"Infection and inflammatory reaction due to other urinary catheter"
T85621A,10,"Displacement of intraperitoneal dialysis catheter, initial encounter"
```

```
look for icd10, without period
T80218D,10,"Other infection due to central venous catheter, subsequent encounter"
T80219S,10,"Unspecified infection due to central venous catheter, sequela"
T80212S,10,"Local infection due to central venous catheter, sequela"
T80219A,10,"Unspecified infection due to central venous catheter, initial encounter"
T8021,10,"Infection due to central venous catheter"
T80218,10,"Other infection due to central venous catheter"
T80219,10,"Unspecified infection due to central venous catheter"
T80211D,10,"Bloodstream infection due to central venous catheter, subsequent encounter"
T80211A,10,"Bloodstream infection due to central venous catheter, initial encounter"
T80212D,10,"Local infection due to central venous catheter, subsequent encounter"
T80219D,10,"Unspecified infection due to central venous catheter, subsequent encounter"
T80212A,10,"Local infection due to central venous catheter, initial encounter"
T80218S,10,"Other infection due to central venous catheter, sequela"
T80218A,10,"Other infection due to central venous catheter, initial encounter"
T80211,10,"Bloodstream infection due to central venous catheter"
T80212,10,"Local infection due to central venous catheter"
T80211S,10,"Bloodstream infection due to central venous catheter, sequela"
```

Entrée [1] ▼

```
1# but no one in this data set actually gets a catheter infection
2!egrep -w --color=yes "(99931|99932|99933)" mimic-iv-clinical-database-demo-2.2/*
```

executed in 159ms, finished 14:13:54 2023-09-10

```
mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv:10037928,23721604,5,99931,9
mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv:10035631,22732862,1,99933,9
mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv:10035631,29462354,6,99932,9
mimic-iv-clinical-database-demo-2.2/hosp/diagnoses_icd.csv:10035631,20385771,5,99931,9
mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagnoses.csv:99932,9,Bloodstream infection due to central venous catheter
mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagnoses.csv:99931,9,Other and unspecified infection due to central venous catheter
mimic-iv-clinical-database-demo-2.2/hosp/d_icd_diagnoses.csv:99933,9,Local infection due to central venous catheter
```