

MIMIC 3

DATABASE QUERIES

Query 1

Creating all tables

```
PROCEDUREEVENTS_MV - CREATE TABLE IF NOT EXISTS  
PROCEDUREEVENTS_MV (row_id TEXT, subject_id TEXT,  
hadm_id TEXT, icustay_id TEXT, starttime TEXT, endtime  
TEXT, itemid TEXT, value TEXT, valueuom TEXT, location  
TEXT, locationcategory TEXT, storetime TEXT, cgid TEXT,  
orderid TEXT, linkorderid TEXT, ordertypecategoryname TEXT,  
secondaryordertypecategoryname TEXT,  
ordertypecategorydescription TEXT, isopenbag TEXT,  
continueinnextdept TEXT, cancelreason TEXT,  
statusdescription TEXT, comments_editedby TEXT,  
comments_canceledby TEXT, comments_date TEXT);
```

attaching the query to create one query, queries for all the other tables are in my code :)

Query 2, 3

Selecting `expiry_flag` from patients table and calculating mortality rate

```
SELECT expire_flag from PATIENTS
```

```
SELECT COUNT(*) FROM PATIENTS  
WHERE expire_flag = 1;
```

Query 4,5

Grouping patient admissions with ethnicity and religion

```
SELECT religion, COUNT(religion) FROM  
ADMISSIONS GROUP BY religion;
```

```
('BUDDHIST', 2), ('CATHOLIC',  
118), ('CHRISTIAN SCIENTIST', 6),  
(JEWISH', 20), ('MUSLIM', 4),  
(NOT SPECIFIED', 38), ('OTHER',  
8), ('PROTESTANT QUAKER', 20),  
(ROMANIAN EAST. ORTH', 2),  
(UNOBTAINABLE', 38)]
```

```
SELECT ethnicity, COUNT(ethnicity)  
FROM ADMISSIONS GROUP BY ethnicity;
```

```
[('AMERICAN INDIAN/ALASKA NATIVE  
FEDERALLY RECOGNIZED TRIBE', 4),  
(ASIAN', 4), ('BLACK/AFRICAN AMERICAN',  
14), ('HISPANIC OR LATINO', 4),  
(HISPANIC/LATINO - PUERTO RICAN', 30),  
(OTHER', 6), ('UNABLE TO OBTAIN', 2),  
(UNKNOWN/NOT SPECIFIED', 22),  
(WHITE', 172)]
```



Query 6

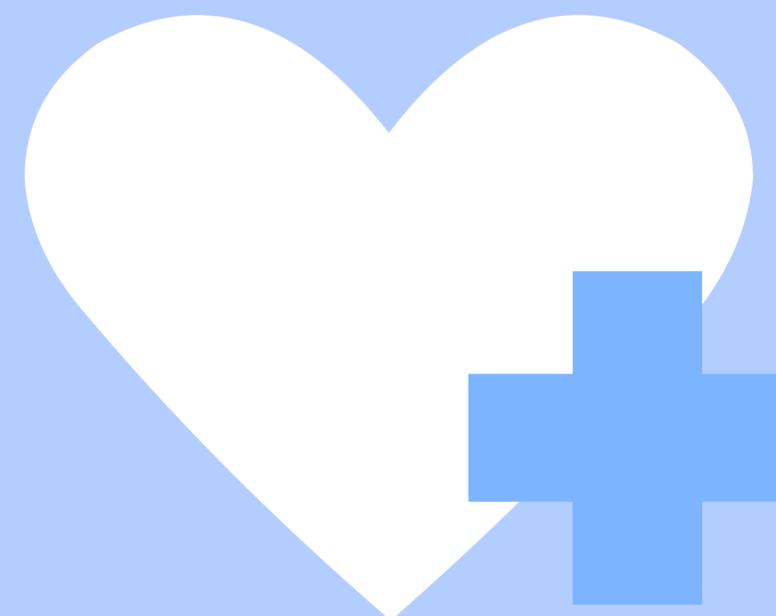
CALLOUT STATUS PER CARE UNITS

```
SELECT curr_careunit, COUNT(callout_status) AS  
request_status_count FROM CALLOUT GROUP BY  
curr_careunit
```

	curr_careunit	request_status_count
0	CCU	20
1	CSRU	6
2	MICU	82
3	SICU	38
4	TSICU	8

Query 7

Care units and their number of acknowledged requests



```
SELECT
    curr_careunit,
    SUM(CASE WHEN acknowledge_status = 'Acknowledged'
THEN 1 ELSE 0 END) AS acknowledged_count,
    SUM(CASE WHEN acknowledge_status = 'Revised' THEN
1 ELSE 0 END) AS revised_count
FROM
    CALLOUT
GROUP BY
    curr_careunit;
```

curr_careunit	acknowledged_count	revised_count
0 CCU	20	0
1 CSRU	6	0
2 MICU	80	2
3 SICU	34	4
4 TSICU	8	0

Query 8

Identifying how regularly does caregivers gives prescribed drugs/solutions (this is useful if any caregiver is potentially abusing their power with drugs distribution or prescription)

```
SELECT
    c.cgid AS caregiver_id,
    c.label AS caregiver_title,
    c.description AS caregiver_description,
    COUNT(i.row_id) AS total_events,
    SUM(i.amount) AS total_amount_administered,
    AVG(i.amount) AS avg_amount_per_event
FROM
    caregivers c
JOIN
    inputevents_mv i ON c.cgid = i.cgid GROUP BY c.cgid, c.label, c.description
ORDER BY total_events DESC;
```

Query 8 Output

	caregiver_id	caregiver_title	caregiver_description	total_events	total_amount_administered	avg_amount_per_event
0	14605	RN	RN	252	24882.126527	98.738597
1	14213	RN	RN	152	29684.400615	195.292109
2	14695	RN	RN	64	15979.999929	249.687499
3	14986	RN	RN	64	16208.667013	253.260422

Query 9, 10

Understanding patient mortality vs drug severity and drug mortality rates (we can understand about potent drugs and their affects through this query)

```
SELECT
d.drg_mortality AS drug_mortality,
CASE
WHEN a.hospital_expire_flag = 1 THEN 1
ELSE 0
END AS patient_mortality
FROM
DRGCODES d
JOIN
ADMISSIONS a
ON
d.hadm_id = a.hadm_id;
```

```
SELECT
d.drg_severity AS drug_severity,
CASE
WHEN a.hospital_expire_flag = 1 THEN 1
ELSE 0
END AS patient_mortality
FROM
DRGCODES d
JOIN
ADMISSIONS a
ON
d.hadm_id = a.hadm_id;
```

Outputs

	drug_mortality	patient_mortality
0	None	0
1	None	0
2	None	0
3	None	0
4	None	0
...
1183	4.0	0
1184	4.0	0
1185	4.0	0
1186	None	0
1187	None	0

	drug_severity	patient_mortality
0	None	0
1	None	0
2	None	0
3	None	0
4	None	0
...
1183	4.0	0
1184	4.0	0
1185	4.0	0
1186	None	0
1187	None	0