PROJECT: ANALYZING STUDENTS' MENTAL HEALTH



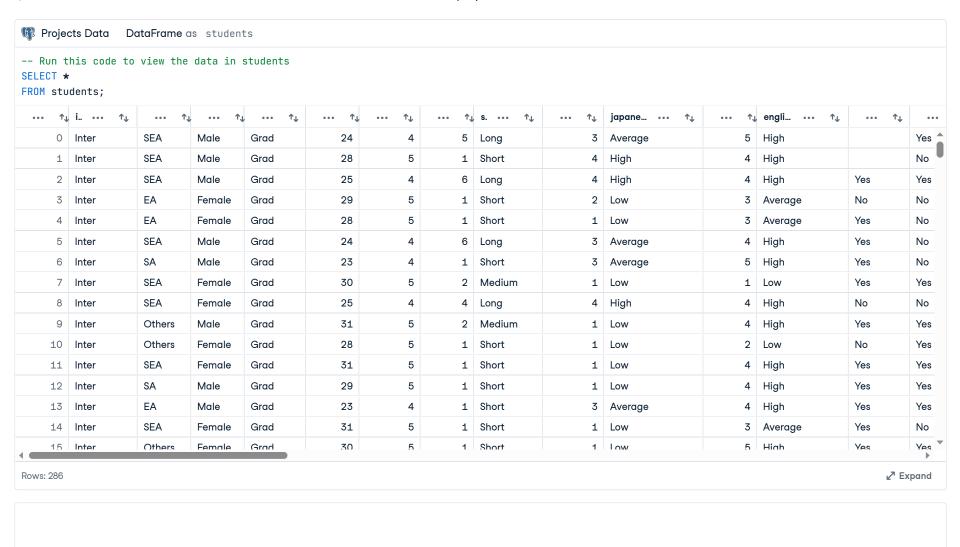
Does going to university in a different country affect your mental health? A Japanese international university surveyed its students in 2018 and published a study the following year that was approved by several ethical and regulatory boards.

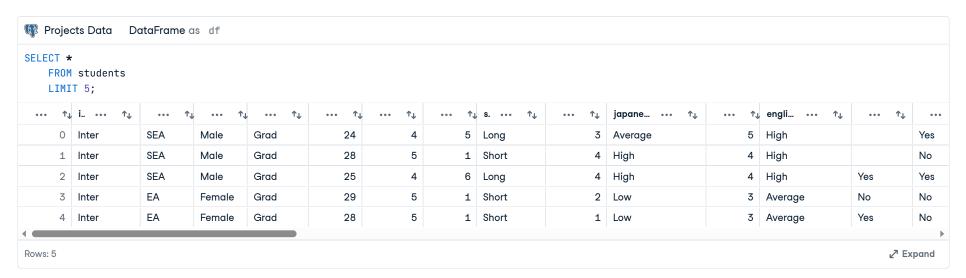
The study found that international students have a higher risk of mental health difficulties than the general population, and that social connectedness (belonging to a social group) and acculturative stress (stress associated with joining a new culture) are predictive of depression.

Explore the students data using PostgreSQL to find out if you would come to a similar conclusion for international students and see if the length of stay is a contributing factor.

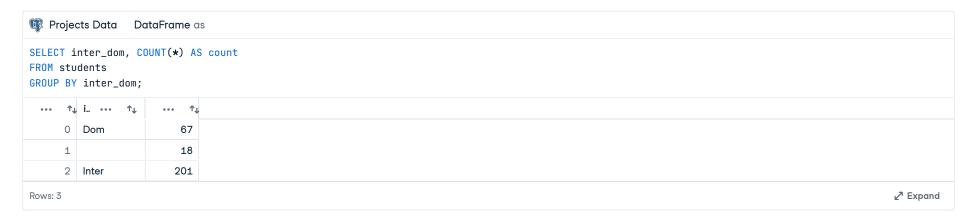
Here is a data description of the columns you may find helpful.

Field Name	Description
inter_dom	Types of students (international or domestic)
japanese_cate	Japanese language proficiency
english_cate	English language proficiency
academic	Current academic level (undergraduate or graduate)
age	Current age of student
stay	Current length of stay in years
todep	Total score of depression (PHQ-9 test)
tosc	Total score of social connectedness (SCS test)
toas	Total score of acculturative stress (ASISS test)



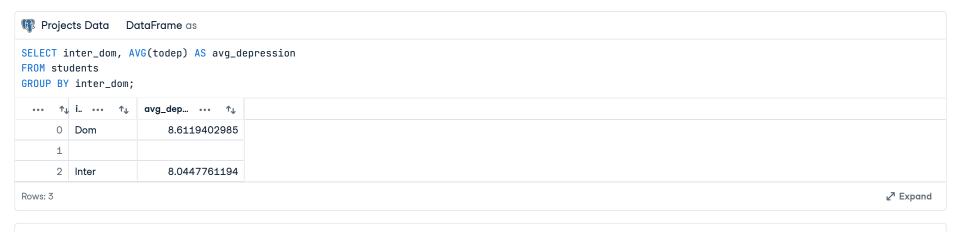


## Step 2: Count International vs Domestic Students



TO Check the number of international vs. domestic students TO understand the sample distribution — whether the data is balanced or skewed towards one group.

Step 3: Compare Average Depression Scores (PHQ-9) We now compare depression scores (todep) between international and domestic students.



international students report slightly lower levels of depression on average therefore slighlytl supporting the study's findings.

Step 4: Check Correlation with Social Connectedness Now examine the relationship between depression and social connectedness (tosc).

```
Projects Data DataFrame as

SELECT CORR(todep, tosc) AS corr_depression_social
FROM students;

... ↑↓ corr_depression_social ... ↑↓
0 -0.5517952837

Rows:1
```

A negative correlation indicating that as social connectedness increases, depression tends to decrease.

3b: Correlation between acculturative stress and depression

```
Projects Data DataFrame as

SELECT CORR(toas, todep) AS corr_acculturative_stress_depression
FROM students;

... ↑ corr_acculturative_stress_depression ... ↑

0 0.3940945338

Rows:1
```

A positive correlation suggesting that higher acculturative stress is linked to higher depression.

Does Length of Stay Influence Depression? Let's see if the length of stay has any relation with depression.

```
Projects Data DataFrame as
-- Find the number of international students and their average scores by length of stay, in descending order of length of stay
SELECT stay AS stay,
       COUNT(*) AS count_int,
       ROUND(AVG(todep), 2) AS average_phq,
       ROUND(AVG(tosc), 2) AS average_scs,
       ROUND(AVG(toas), 2) AS average_as
FROM students
WHERE inter_dom = 'Inter'
GROUP BY stay
ORDER BY stay DESC;
               ↑ c. •••
                              av... •••
                                             av... •••
                                                                    \uparrow_{\downarrow}
      0
                                         13
              10
                           1
                                                        32
                                                                     50
      1
               8
                           1
                                         10
                                                        44
                                                                     65
      2
               7
                           1
                                          4
                                                        48
                                                                     45
      3
               6
                           3
                                          6
                                                       38
                                                                  58.67
      4
               5
                           1
                                          0
                                                       34
                                                                     91
      5
               4
                          14
                                       8.57
                                                     33.93
                                                                  87.71
      6
               3
                          46
                                       9.09
                                                     37.13
                                                                     78
      7
               2
                          39
                                       8.28
                                                     37.08
                                                                  77.67
      8
               1
                          95
                                       7.48
                                                     38.11
                                                                   72.8
Rows: 9
                                                                                                                                                       Expand
```

positive correlation indicating length of stay could be a contributing factor (positive or negative).