



EXERCISE

- Read the details below for context and analyze our student enrollment journey and help us understand aspects of its current health. *Use SQL (or Python) - whichever you're most comfortable with.*
 - Example questions to consider: Where are the biggest drop-offs in the enrollment journey? Is this associated with anything?
- Visualize the most important insights you find and create a brief slide deck. Use Google Slides. Include 2-3 recommendations with your findings. Share all files (including your SQL or Python code)

CONTEXT ON STUDENT ENROLLMENT JOURNEY

- Student enrollment journey for the Core program:
 1. Registration
 2. Starting and completing an application (13 steps)
 3. Talk to an admissions advisor (this might happen before or after completing an application)
 4. Get accepted or rejected
 5. If accepted, they are sent an invoice for the “products” or experiences that will best support their research journey
 6. **Enrollment** (payment)
- After a student enrolls, they are paired with an expert mentor to explore their passions through 10 hour-long sessions (data post enrollment is not included in this assignment)

DATA NOTES

- The id in *backend_user* joins to owner_id in *marketplace_studentprofile*
- The id in *marketplace_studentprofile* joins to
 - student_id in *student_application_studentapplication* and joins to
 - student_issued_to in *payment_paymentintent*

Other clarifying notes:

- Only a subset of our data is included in this assignment. We've limited the four tables to only include data for students who registered between 1/1/23-4/1/23.

backend_user

- **user_type** = 'student'
- **is_active** is whether the student is active
- **created** is when the student registered
- When **channel** != 'standard' then the student came to us from a partner

marketplace_studentprofile

- **admission_advisor_id** is the admission advisor the student is assigned to
- **referral** is where the student told us they first heard about Polygence
- **profile_completion_stage** shows the stage of the application that the student is currently in. There are 13 steps to completing the profile/application. When the application is complete (see the **first_completed_at** field from the *student_application* table), this field resets back to 0.
 - The reason some students with a **first_completed_at** date have a **profile_completion_stage** > 0 is because they can go back and edit their profile afterwards.
 - Students can have more than one application, in those cases, the **profile_completion_stage** reflects their first application.

student_application_studentapplication

- **created_at** is when the application was started
- **status** is the current status of the application
- Here are the 13 application steps in order (students must fill out a step before advancing to the next step):
 1. **general_interest**
 2. **pronoun** (stored in *marketplace_studentprofile*)
 3. **referral** (stored in *marketplace_studentprofile*)
 4. **school_graduation_year** (stored in *marketplace_studentprofile*)
 5. **counselor** (excluded from assignment because PII)
 6. **parent** (excluded from assignment because PII)
 7. **scholarship_applicant** - true if a student applies for financial aid
 8. **output_fields** indicate a students' desired output(s) for their project.
 9. **student_details** (excluded from assignment because PII)
 10. **project_idea**: A students' project idea will either be in the **interest** field or the **science_experiment_description** field.
 11. **intend_to_do_cs** – does the student intend to do a computer science project?
 12. **timeline questions** -
 - **time_commitment** is how many hours a week they can commit to their Polygence project.
 - **timeline_start_at** and **timeline_end_at** is the proposed start and end date of the project.
 13. **virtual_interview_submitted_at** is when the student submits the last part of their application which is to submit a video interview.
- **first_completed_at** is the first time the student submitted their application

- **completed_at** is the last time the student submitted their application (if they edit it and re-submit it)
- **accepted_at** is when a students application is accepted
- **declined_at** is when a students application is rejected

payment_paymentintent

- This table contains all invoices sent to students who were accepted.
- **products_invoiced_for** is a list of all products the student was invoiced for.
- **created_at** is when the invoice was sent
- **type** describes whether the student wants to pay all at once “one time” or in installments “subscription” (6 separate payments over 6 months)
- **amount_invoiced** is the amount invoiced to the student.
 - If a student gets refunded, the amount_invoice is adjusted for how much needs to be refunded. So total amount invoiced is technically refunded_amount + amount_invoiced
- **paid_amount** is the amount that the student has currently paid (money in the bank)
- **refunded_amount** is the amount the student was refunded
- **first_payment_received_at** is the first time we receive a payment for a student.