

Group 10 Members:

Sonal Sunil Takalikar - (002319575)

Sakshi Mohan Tapkir (002331980)

Rupam Patra (002050766)

Bharath Kumar Tamilselvam (002050099)

1. No Identifier for Entities?

In our P3 logical ERD, **every entity now has a primary key (identifier)**:

- **Applicant** uses `applicant_id` (PK)
- **Application** uses `application_id` (PK)
- **Visa** uses `visa_id` (PK)
- **Payment** uses `payment_id` (PK)
- **Immigration_Office** uses `office_id` (PK)
- **Appointment** uses `appointment_id` (PK)
- **Officer** uses `officer_id` (PK)
- **Document** uses `document_id` (PK)
- **Document_Type** uses `doc_type_id` (PK)
- **Notification** uses `notification_id` (PK)
- **Case_Note** uses `note_id` (PK)
- **Appeal** uses `appeal_id` (PK)
- **Travel_History** uses `history_id` (PK)

This ensures **all strong entities** (and even associative entities) have **unique identifiers**, meeting the requirement that every table has a **clearly defined primary key**.

2. No Attributes for Appeal?

Previously, the **Appeal** entity looked like it had no attributes. In the P3 design, it is now fully fleshed out with:

- `appeal_id` (PK)
- `application_id` (FK) (tying the appeal to a specific application)
- `appeal_date`

- **appeal_status** (e.g., Submitted, Accepted, Rejected)
- **reason** (optional field explaining why the appeal was filed)
- **decision_date** (when a final verdict was issued)

These attributes capture the critical data points for managing appeals, **resolving** the comment about missing attributes.

3. Appointment Relationship (Many Applicants vs. Single Appointment)

In the original design, there was confusion that each applicant might only have **one** appointment, or that **one appointment** could be tied to **many** applicants. We clarified that **appointments typically occur on a per-applicant basis**, and an applicant can schedule multiple appointments over time if needed. Specifically:

- **One Applicant** can have **many** appointments (e.g., they might schedule a biometrics appointment, then later another for an interview).
- **Each Appointment** is for exactly **one** applicant (to avoid the confusion that an appointment might be a group booking for multiple applicants).

Hence, an **appointment_id** is unique to a single applicant and single office, but an applicant may have multiple rows in the **Appointment** table over time. This **corrects** the previous misunderstanding and aligns with a realistic immigration workflow.

By introducing **primary keys** for each entity, **adding attributes** to **Appeal**, and **clarifying** the **appointment** cardinalities, the new **P3 logical ERD** addresses all key points of feedback from P2. Our design is now **fully normalized**, with clear **identifiers** for every table and **accurate relationships** reflecting real-life visa/immigration processes.

LOGICAL ERD Model:

