Database Normalization Report

1NF (First Normal Form)

- All attributes contain atomic values (no repeating groups, no multi-valued fields).
- Clients, Bookings, Packages, Locations, Staff all have single-valued attributes.
- BookingStaff junction table ensures no repeating staff assignments.

■ Result: Database meets 1NF.

2NF (Second Normal Form)

- Every non-key attribute must depend on the whole primary key.
- BookingStaff composite key (booking_id, staff_id) → role depends on the full key.
- Invoices depend on booking_id fully.
- Other entities have single-column PKs, no partial dependencies.

■ Result: Database meets 2NF.

3NF (Third Normal Form)

- No transitive dependencies (non-key attributes depending on other non-key attributes).
- Client: email depends only on client_id, not on name.
- Invoice: total_amount depends on booking_id (via package/price), not on other non-key fields.
- No redundant attributes (e.g., client address is only in Clients table).

■ Result: Database meets 3NF.

Relationship Verification

- Clients → Bookings: 1:M
- Packages → Bookings: 1:M
- Locations → Bookings: 1:M
- Bookings → Invoices: 1:1
- Bookings → Deliveries: 1:M
- Bookings ↔ Staff: M:N resolved via BookingStaff.

■ All relationships are logically consistent and realistic.

Sample Queries

1. Which staff members worked on a wedding session, and what were their roles?
(Join Bookings, BookingStaff, and Staff)

2. Show all bookings for a specific client, including package type, invoice amount, and delivery status.
(Join Clients, Bookings, Packages, Invoices, Deliveries)