**Schema Definition**

The ER diagram represents the relationships between the tables in our database schema. Here's a brief explanation of each table and the data it stores:

* **users:** Stores user information, including user ID, username, password, role (admin or user), and timestamps.
* **biller:** Stores biller information, such as biller ID, name, address, GSTIN, email, contact, and timestamps.
* **issuers:** Stores issuer information, including issuer ID, name, and timestamps.
* **clients:** Stores client information, including client ID, name, issuer ID (foreign key to issuers), address, GSTIN, email, contact, client type (TSP Model or Program Manager Model), and timestamps.
* **products:** Stores product information, including product ID, name, issuer ID (foreign key to issuers), and timestamps.
* **fee\_master:** Stores fee information, including fee ID, name, type (Static or Dynamic), frequency (Monthly, Yearly, or One-time), HSN code, and timestamps.
* **client\_product\_fee\_mapping:** Stores the mapping between clients, products, and fees, including mapping ID, client ID, product ID, fee ID, unit price, start date, end date, and timestamps.
* **interchange\_fees:** Stores interchange fee information, including interchange fee ID, fee name, client ID, start date, end date, interchange amount, minimum interchange, and timestamps.
* **invoices:** Stores invoice information, including invoice ID, biller ID, client ID, issuer ID, invoice number, date, amount, tax rate, tax amount, total amount, type, month, charge date, taxable amount, rounding up, grand total, amount in words, and timestamps.
* **invoice\_line\_items:** Stores invoice line-item details, including line item ID, invoice ID, fee ID, units, unit price, total, GST amount, final amount, and timestamps.
* **fee\_history:** Stores fee history information, including fee history ID, client ID, issuer ID, fee ID, charge date, units, total, and timestamps.

Pre-storing data:

* The users, biller, issuers, clients, products, **fee\_master, client\_product\_fee\_mapping**, and **interchange\_fees** tables store the necessary data before generating invoices.

Post-invoice generation:

* The **invoices**, **invoice\_line\_items, and fee\_history** tables store the generated invoice data, including invoice details, line items, and fee history.