```sql
-- 1. Users Table
CREATE TABLE Users (
user_id    serial  PRIMARY KEY,
email      VARCHAR(100) UNIQUE NOT NULL,
password   VARCHAR(255) NOT NULL,
user_role  VARCHAR(20) NOT NULL,   -- admin / ops / user
group_id   VARCHAR(50) NULL
);

-- 2. Groups Table
CREATE TABLE Groups (
group_id    serial PRIMARY KEY,
group_name  VARCHAR(100) UNIQUE NOT NULL
);

-- 3. SubGroups Table
CREATE TABLE SubGroups (
sub_group_id  serialPRIMARY KEY,
name          VARCHAR(100) NOT NULL,
group_id      INTEGER  NOT NULL,
FOREIGN KEY (group_id) REFERENCES Groups(group_id)
);

-- 4. User_SubGroups (for normal users only)
CREATE TABLE User_SubGroups (
id            SERIAL PRIMARY KEY,
user_id       INTEGER NOT NULL,
sub_group_id  INTEGER NOT NULL,
FOREIGN KEY (user_id) REFERENCES Users(user_id),
FOREIGN KEY (sub_group_id) REFERENCES SubGroups(sub_group_id),
UNIQUE(user_id, sub_group_id)
);

-- 5. Reports Table
CREATE TABLE Reports (
```

```sql
select * from users;
select * from groups;
select * from  notifications;
select * from  reports;
select * from subgroups;
select * from user_subgroups;
select * from favorites;
```

```sql
report_id    serial PRIMARY KEY,
name         VARCHAR(200) NOT NULL,
type         VARCHAR(50) NOT NULL,    -- PDF/Excel/CSV
date         DATE NOT NULL,
folder       VARCHAR(100) NOT NULL,    -- same as SubGroup name
sub_group_id  INTEGER NOT NULL,
FOREIGN KEY (sub_group_id) REFERENCES SubGroups(sub_group_id)
);

-- 6. Favorites Table
CREATE TABLE Favorites (
id        SERIAL PRIMARY KEY,
user_id   INTEGER NOT NULL,
report_id INTEGER NOT NULL,
FOREIGN KEY (user_id) REFERENCES Users(user_id),
FOREIGN KEY (report_id) REFERENCES Reports(report_id),
UNIQUE(user_id, report_id)
);

--7 Notification Table
CREATE TABLE Notifications (
notification_id SERIAL PRIMARY KEY,
user_id         INTEGER NOT NULL,
report_id       INTEGER  NOT NULL,
created_at      TIMESTAMP DEFAULT CURRENT_TIMESTAMP,
FOREIGN KEY (user_id) REFERENCES Users(user_id),
FOREIGN KEY (report_id) REFERENCES Reports(report_id)
);
-- Groups
INSERT INTO Groups (group_name) VALUES ('Finance'), ('HR');

-- SubGroups
INSERT INTO SubGroups (name, group_id) VALUES ('Tax Reports', 1), ('Salary Slips', 2);

-- Users
```

```sql
INSERT INTO Users (email, password, user_role, group_id)
VALUES
('admin@test.com', 'admin123', 'admin', NULL),
('user1@test.com', 'user123', 'user', 1),
('user2@test.com', 'user456', 'user', 2);

-- User_SubGroups (assign users to subgroups)
INSERT INTO User_SubGroups (user_id, sub_group_id) VALUES
(2, 1),  -- user1 in Tax Reports
(3, 2);  -- user2 in Salary Slips

-- Reports
INSERT INTO Reports (name, type, date, folder, sub_group_id) VALUES
('Quarterly Tax Report', 'PDF', '2025-08-01', 'Tax Reports', 1),
('Annual Salary Report', 'Excel', '2025-07-01', 'Salary Slips', 2);

-- Favorites (optional for testing)
INSERT INTO Favorites (user_id, report_id) VALUES (2, 1);

-- Notifications
INSERT INTO Notifications (user_id, report_id) VALUES (2, 1), (3, 2);
```