Lecture 2: PostgreSQL Setup

Complete PostgreSQL Installation Steps

Step 1: Download PostgreSQL

1. Visit postgresql.org
2. Click "Download" → Select your operating system
3. Download the installer for your platform

Step 2: Installation Process

Windows:

1. Run the downloaded .exe file as administrator
2. Follow the installation wizard:
   - Choose installation directory (default: `C:\Program Files\PostgreSQL\15`)
   - Select components (PostgreSQL Server, pgAdmin 4, Command Line Tools)
   - Choose data directory (default: `C:\Program Files\PostgreSQL\15\data`)
   - Set password for postgres superuser (remember this!)
   - Set port (default: 5432)
   - Choose local (default is fine)
3. Complete installation

macOS:

1. Run the downloaded .dmg file
2. Follow similar steps as Windows
3. Or use Homebrew: `brew install postgresql`

Linux (Ubuntu/Debian):

```
sudo apt update
sudo apt install postgresql postgresql-contrib
sudo systemctl start postgresql

sudo systemctl enable postgresql
```

Step 3: Verify Installation

1. Open Command Prompt/Terminal
2. Test connection: `psql -U postgres`
3. Enter the password you set during installation

Step 4: Using pgAdmin

1. Launch pgAdmin 4 from Start Menu/Applications
2. Create master password for pgAdmin
3. Connect to the PostgreSQL server:
   - Host: localhost
   - Port: 5432
   - Username: postgres
   - Password: (your set password)

Step 5: Create Database and Table

1. In pgAdmin, right-click "Databases" → "Create" → "Database"
2. Name: demo
3. Click "Save"

Create Table using SQL:

```sql
-- Connect to demo database
-- Create student table
CREATE TABLE student (
    sid INTEGER PRIMARY KEY,
    sname TEXT NOT NULL,
    marks INTEGER
);

-- Insert sample data
INSERT INTO student VALUES (1, 'Navin', 80);
```

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