



Atlan Backend Challenge

Design Specification

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```
atlanDB.sql
1  -- Table to store client income data
2  CREATE TABLE client_income_data (
3      client_id SERIAL PRIMARY KEY,
4      client_email VARCHAR(255),
5      client_name VARCHAR(255),
6      income_per annum INT,
7      savings_per annum INT,
8      mobile_number VARCHAR(10)
9  );
10 -- Table to store word mappings to languages
11 CREATE TABLE wordlang (
12     word_ID SERIAL PRIMARY KEY,
13     word VARCHAR(255) UNIQUE,
14     lang VARCHAR(2)
15 );
16
17 -- Table to store word mappings to slangs
18 CREATE TABLE wordslang (
19     lang_ID VARCHAR(2),
20     word VARCHAR(255),
21     slang VARCHAR(255),
22     PRIMARY KEY (lang_ID, word),
23     FOREIGN KEY (word) REFERENCES wordlang(word)
24 );
25
26 INSERT INTO wordlang (word, lang) VALUES
27 | | ('Hello', 'HI');
28
29 INSERT INTO wordslang (lang_ID, word, slang) VALUES
30 | | ('HI', 'Hello', 'Namaste');
31
32 CREATE TABLE IF NOT EXISTS users (
33     id SERIAL PRIMARY KEY,
34     name VARCHAR(255) NOT NULL,
35     email VARCHAR(255) UNIQUE NOT NULL,
36     password VARCHAR(255) NOT NULL
37 );
38
```

These SQL queries need to be run in the PgAdmin SQL query tool under the database with the following information

```
const pool = new Pool({
  host: 'localhost',
  user: 'myproject',
  password: 'pratyush',
  port: 5433,
  database: 'myproject'
});
```

For Login and Registration

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the 'Object Explorer' with the 'public' schema expanded, showing a list of tables including 'users'. The main pane shows a SQL query: `select * from users`. The 'Data Output' tab is active, displaying the results of the query in a table format. The status bar at the bottom indicates 'Total rows: 4 of 4' and 'Query complete 00:00:00.153'.

id [PK] Integer	name character varying (255)	email character varying (255)	password character varying (255)
1	Pratyush Khare	nevergiveup24.786@gmail.com	pratyush
2	Pratyush Khare	pratyushk824.786@gmail.com	pratyush
3	ayush	nergrst@gmail.com	ayush
4	ayush	@gmail.com	ayush

Successfully run. Total query runtime: 153 msec. 4 rows affected.

To find slang using database

The screenshot shows the pgAdmin 4 interface. The left sidebar displays the 'Object Explorer' with the 'public' schema expanded, showing a list of tables including 'wordslang'. The main pane shows a SQL query: `select * from wordslang`. The 'Data Output' tab is active, displaying the results of the query in a table format. The status bar at the bottom indicates 'Total rows: 2 of 2' and 'Query complete 00:00:00.098'.

lang_id [PK] character varying (2)	word [FK] character varying (255)	slang character varying (255)
HI	Hello	Namaste
hi	hello	namaste

After validation, the data is stored in an SQL database table

pgAdmin 4

File Object Tools Help

Object Explorer

myproject

Casts

Catalogs

Event Triggers

Extensions

Foreign Data Wrappers

Languages

Publications

Schemas (1)

public

Aggregates

Collations

Domains

FTS Configurations

FTS Dictionaries

FTS Parsers

FTS Templates

Foreign Tables

Functions

Materialized Views

Operators

Procedures

Sequences

Tables (4)

client_income_data

users

wordlang

wordslang

Trigger Functions

Types

Views

Subscriptions

myproject2

Dashboard Properties SQL Statistics Dependencies Dependents Processes

myproject/postgres@PostgreSQL 16*

myproject/postgres@PostgreSQL 16

No limit

Query Query History

Scratch Pad

1 select * from client_income_data

Data Output Messages Notifications

client_id [PK] integer client_email character varying (255) client_name character varying (255) income_per_annum integer savings_per_annum integer mobile_number character varying (10)

1 10 NEVERGIVEUP24@gmail.com Pratyush Khare 600 500 9660784378

2 11 pratyushk824.789@gmail.com Ayush 600 400 9874561230

3 12 pratyushk824.789@gmail.com Ayush 10000001 10000001 9660784378

4 13 pratyushk824.789@gmail.com Ayush 10000001 10000 9660784378

5 14 pratyushk824.789@gmail.com Ayush 10000001 10000 9660784378

Total rows: 5 of 5 Query complete 00:00:00.377 Ln 1, Col 33

After task 3 the client_income_data table is downloaded to your system in form of csv file.

	A	B	C	D	E	F	G
1	client_id	client_email	client_name	income_per_annum	savings_per_annum	mobile_number	
2	10	NEVERGIVEUP24@gmail.com	Pratyush Khare	600	500	9660784378	
3	11	pratyushk824.789@gmail.com	Ayush	600	400	9874561230	
4	12	pratyushk824.789@gmail.com	Ayush	10000001	10000001	9660784378	
5	13	pratyushk824.789@gmail.com	Ayush	10000001	10000	9660784378	
6	14	pratyushk824.789@gmail.com	Ayush	10000001	10000	9660784378	
7							
8							