NAME: CHANDRU.V

DEPT: CSE – C

REG.NO: 2127220501303

GIT- https://github.com/chandru-26

DATABASE CREATION -postgressSQL


```
usrecipies/postgres@PostgreSQL 17

Query   Query History

1   TE TABLE IF NOT EXISTS recipes (
2        id SERIAL PRIMARY KEY,continent VARCHAR(255),    country_state VARCHAR(255),
3       cuisine VARCHAR(255),    title VARCHAR(255),
4       url TEXT,    rating NUMERIC(2,1),
5       total_time INT,    prep_time INT,
6       cook_time INT,    description TEXT,
7       ingredients JSONB,    instructions JSONB,
8       nutrients JSONB,    serves VARCHAR(255)
9   );
```

DB NAME –"**usrecipes**" with table name recipes

Project creation

Backend folder initialize-"npm init -y"

Installing node modules

- npm install pg
- npm install express
- npm install axios

creating main file"server.js"

connection to database

```
const client = new Client({
    user: 'postgres',
    host: 'localhost',
    database: 'usrecipies',
    password: 'root',
    port: 5432,
});

client.connect();
```

Function to fetch data—insertRecipesFromJson

Where the json is converted to utf8 encoded string and then it is given to a java object. For loop to fetch and insert each data to the database.

SQL injection is prevented by this method.

```
for (const key in recipes) {
    const recipe = recipes[key];
    const query = `
        INSERT INTO recipes (
            continent, country_state, cuisine, title, url, rating,
            total_time, prep_time, cook_time, description, ingredients,
            instructions, nutrients, serves
        ) VALUES (
            $1, $2, $3, $4, $5, $6, $7, $8, $9, $10, $11, $12, $13, $14
        ) RETURNING id;
    `;
    const values = [recipe.Contient,recipe.Country_State,recipe.cuisine,recipe.title,recipe.URL,
        recipe.rating,recipe.total_time,recipe.prep_time,recipe.cook_time,recipe.description,
        JSON.stringify(recipe.ingredients), JSON.stringify(recipe.instructions), JSON.stringify(re
        recipe.serves,
    ];
    const res = await client.query(query, values);
    console.log(`Inserted recipe with ID: ${res.rows[0].id}`);
    }
} catch (err) {
    console.error('Error inserting data:', err);
}
```

API ENDPOINT creation:

API-1 to return first 10 entries,

SELECT * FROM recipes LIMIT 10;

Route- http://localhost:3000/api/users

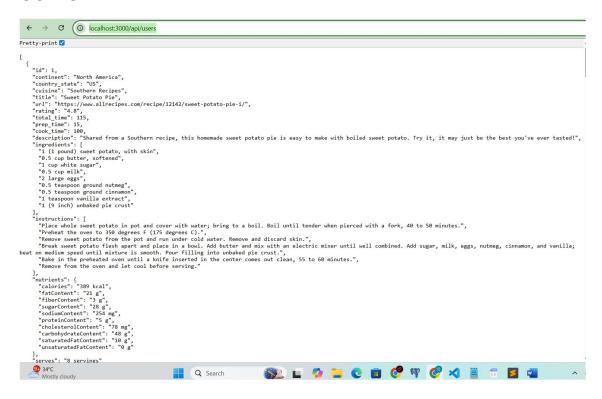API-2 to display the top 10 highly rated entries

SELECT * FROM recipes WHERE rating IS NOT NULL ORDER BY rating DESC LIMIT 10;

Route- http://localhost:3000/api/usersrating

```
app.get('/api/users', async (req, res) => {
    try {
        const result = await client.query('SELECT * FROM recipes LIMIT 10');
        res.json(result.rows);
    } catch (err) {
        console.error('Error fetching users:', err);
        res.status(500).json({ error: 'Internal server error' });
    }
});

app.get('/api/usersrating', async (req, res) => {
    try {
        const result = await client.query('SELECT * FROM recipes WHERE rating IS NOT NULL ORDER BY rating D
        res.json(result.rows);
    } catch (err) {
        console.error('Error fetching users:', err);
        res.status(500).json({ error: 'Internal server error' });
    }
});
```
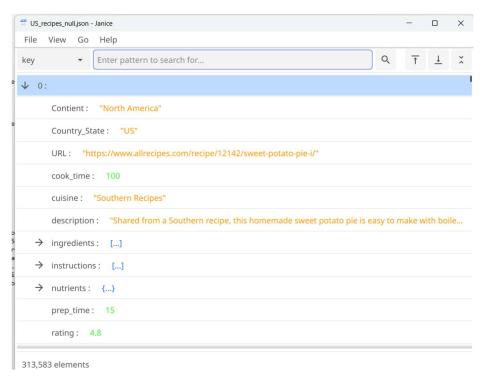
OUTPUT

localhost:3000/api/users

Pretty-print ✓

[
  {
    "id": 1,
    "continent": "North America",
    "country_state": "US",
    "cuisine": "Southern Recipes",
    "title": "Sweet Potato Pie",
    "url": "https://www.allrecipes.com/recipe/12142/sweet-potato-pie-i/",
    "rating": "4.8",
    "total_time": 115,
    "prep_time": 15,
    "cook_time": 100,
    "description": "Shared from a Southern recipe, this homemade sweet potato pie is easy to make with boiled sweet potato. Try it, it may just be the best you've ever tasted!",
    "ingredients": [
      "1 (1 pound) sweet potato, with skin",
      "0.5 cup butter, softened",
      "1 cup white sugar",
      "0.5 cup milk",
      "2 large eggs",
      "0.5 teaspoon ground nutmeg",
      "0.5 teaspoon ground cinnamon",
      "1 teaspoon vanilla extract",
      "1 (9 inch) unbaked pie crust"
    ],
    "instructions": [
      "Place whole sweet potato in pot and cover with water; bring to a boil. Boil until tender when pierced with a fork, 40 to 50 minutes.",
      "Preheat the oven to 350 degrees F (175 degrees C).",
      "Remove sweet potato from the pot and run under cold water. Remove and discard skin.",
      "Break sweet potato flesh apart and place in a bowl. Add butter and mix with an electric mixer until well combined. Add sugar, milk, eggs, nutmeg, cinnamon, and vanilla; beat on medium speed until mixture is smooth. Pour filling into unbaked pie crust.",
      "Bake in the preheated oven until a knife inserted in the center comes out clean, 55 to 60 minutes.",
      "Remove from the oven and let cool before serving."
    ],
    "nutrients": {
      "calories": "389 kcal",
      "fatContent": "21 g",
      "fiberContent": "3 g",
      "sugarContent": "28 g",
      "sodiumContent": "254 mg",
      "proteinContent": "5 g",
      "cholesterolContent": "78 mg",
      "carbohydrateContent": "48 g",
      "saturatedFatContent": "10 g",
      "unsaturatedFatContent": "0 g"
    },
    "serves": "8 servings"
```

34°C
Mostly cloudy

Q Search

**TOTAL – 8451 ENTRIES**

**GIT REPO LINKT-- https://github.com/chandru-26/securine**



US_recipes_null.json - Janice

File   View   Go   Help

key                Enter pattern to search for...

↓  0 :

    Contient :    "North America"

    Country_State :    "US"

    URL :    "https://www.allrecipes.com/recipe/12142/sweet-potato-pie-i/"

    cook_time :    100

    cuisine :    "Southern Recipes"

    description :    "Shared from a Southern recipe, this homemade sweet potato pie is easy to make with boile...

    → ingredients :    [...]

    → instructions :    [...]

    → nutrients :    {...}

    prep_time :    15

    rating :    4.8

313,583 elements

**FRONTEND- YET TO COMPLETE**



localhost:3001                                   School

**Recipe Table**

| Sweet Potato Pie | 5 | Filter |

| Title | Cuisine | Country | Rating | URL |
|-------|---------|---------|--------|-----|

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