

```

4 CREATE TABLE IF NOT EXISTS "User" (
5     email TEXT PRIMARY KEY NOT NULL,
6     name TEXT NOT NULL,
7     date_of_birth TIMESTAMP WITH TIME ZONE,
8     street TEXT,
9     housenr INTEGER,
10    postcode TEXT,
11    city TEXT,
12    country TEXT,
13    telephonenr TEXT,
14    is_chef BOOLEAN,
15    favorites JSONB,
16    preferences JSONB NOT NULL DEFAULT '{}':jsonb,
17    profile_picture TEXT,
18    chef_description VARCHAR(2500),
19    CONSTRAINT preferences_valid_json CHECK (jsonb_typeof(preferences) = 'object')
20 );
21
22 -- Create the Recipe table if it does not exist
23 CREATE TABLE IF NOT EXISTS Recipe (
24     recipename TEXT NOT NULL,
25     chef_email TEXT NOT NULL REFERENCES "User" (email) ON DELETE CASCADE,
26     chef_name TEXT NOT NULL,
27     description TEXT,
28     duration INTEGER,
29     price NUMERIC(10, 2),
30     ingredients JSONB,
31     allergiesrec TEXT,
32     image TEXT,
33     origin TEXT,
34     category TEXT,
35     preparation TEXT,
36     PRIMARY KEY (recipename, chef_email)
37 );
38
39
40 CREATE TABLE IF NOT EXISTS Transaction (
41     transactionid BIGINT PRIMARY KEY GENERATED ALWAYS AS IDENTITY,
42     transactiondate TIMESTAMP WITH TIME ZONE NOT NULL,
43     price NUMERIC(10, 2) NOT NULL,
44     consumer_email TEXT REFERENCES "User" (email) ON DELETE SET NULL,
45     recipename TEXT NOT NULL,
46     chef_email TEXT NOT NULL,
47     FOREIGN KEY (recipename, chef_email) REFERENCES Recipe (recipename, chef_email) ON DELETE CASCADE
48 );
49
50 -- Create the Review table if it does not exist
51 CREATE TABLE IF NOT EXISTS Review (
52     reviewid BIGINT PRIMARY KEY GENERATED ALWAYS AS IDENTITY,
53     comment TEXT,
54     rating INTEGER CHECK (rating BETWEEN 1 AND 5),
55     reviewdate TIMESTAMP WITH TIME ZONE DEFAULT CURRENT_TIMESTAMP,
56     consumer_email TEXT NOT NULL REFERENCES "User" (email) ON DELETE SET NULL,
57     recipename TEXT NOT NULL,
58     chef_email TEXT NOT NULL,
59     transactionid BIGINT NOT NULL,
60     FOREIGN KEY (recipename, chef_email) REFERENCES Recipe (recipename, chef_email) ON DELETE CASCADE,
61     FOREIGN KEY (transactionid) REFERENCES Transaction (transactionid) ON DELETE CASCADE
62 );
63
64 -- Create the Feedback table if it does not exist
65 CREATE TABLE IF NOT EXISTS feedback (
66     id SERIAL PRIMARY KEY,
67     name TEXT NOT NULL,
68     email TEXT NOT NULL,
69     subject TEXT NOT NULL,
70     message TEXT NOT NULL,
71     is_public BOOLEAN DEFAULT FALSE,
72     created_at TIMESTAMP DEFAULT NOW()
73 );
74

```

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74
75 -- Create indexes on the most queried columns to improve query performance
76
77 -- Add an index on the email column in the User table
78 CREATE INDEX IF NOT EXISTS idx_user_email ON "User" (email);
79
80 -- Add an index on the recipename column in the Recipe table
81 CREATE INDEX IF NOT EXISTS idx_recipe_recipename ON Recipe (recipename);
82
83 -- Add an index on the transactiondate column in the Transaction table
84 CREATE INDEX IF NOT EXISTS idx_transaction_date ON Transaction (transactiondate);
85
86 -- Add an index on the consumer_email column in the Transaction table
87 CREATE INDEX IF NOT EXISTS idx_transaction_consumer_email ON Transaction (consumer_email);
88
89 -- Add an index on the recipename column in the Review table
90 CREATE INDEX IF NOT EXISTS idx_review_recipename ON Review (recipename);
```