# Tasks-O-Matic

## Design: Service Layers

Owner

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Overview

The Tasks-O-Matic app allows users to create groups of tasks and track them to completion. The application backend will be built using a Postgres database, RESTful APIs, and database connection pool from Supabase. Requests and responses will be sent as JSON objects.

Project URL

https://ifaapkibhuniyxhgyrvr.supabase.co

Database Type

Postgres database

Database Connection

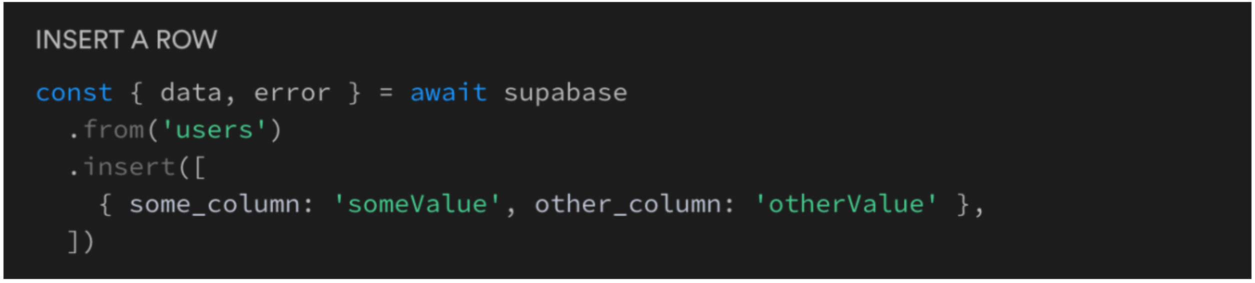
HTTP protocol to all HTTP requests and responses.

Service Layers

1. Task Management Layer for CRUD operation endpoints.
2. Data Persistence Layer for database storage and retrieval.
3. Reporting Layer for adherence reporting.
4. Authentication Layer for logins

## Users

**Create User:** Select “Create Account” for login and click “Save”.
*curl -X POST 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/users'*

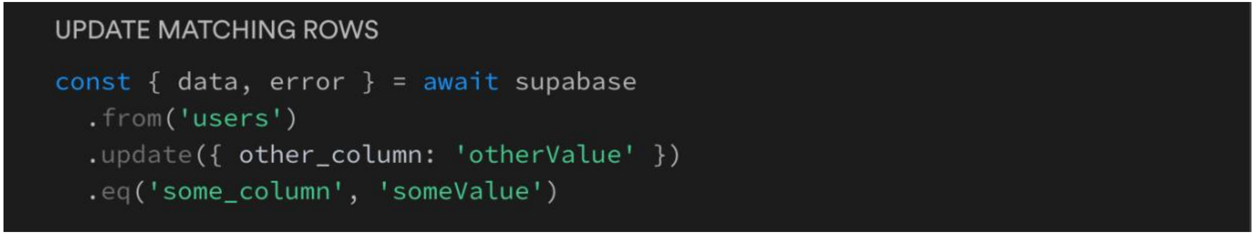


INSERT A ROW

```
const { data, error } = await supabase
  .from('users')
  .insert([
    { some_column: 'someValue', other_column: 'otherValue' },
  ])
```

## Stretch Features

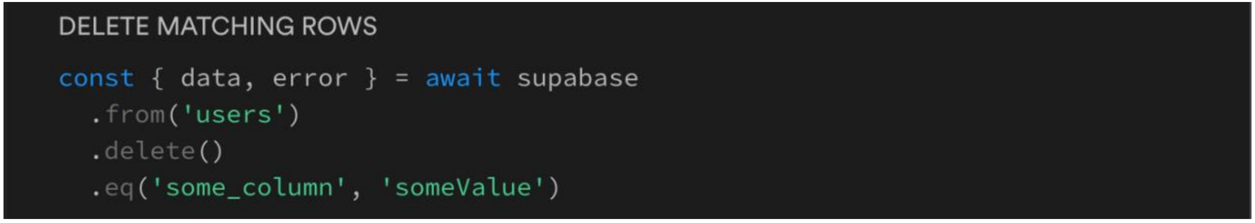
**Edit User:** Edit user account information.
*curl -X PATCH 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/users?some_column=eq.someValue'*



UPDATE MATCHING ROWS

```
const { data, error } = await supabase
  .from('users')
  .update({ other_column: 'otherValue' })
  .eq('some_column', 'someValue')
```

**Delete User:** Delete user account.
*curl -X DELETE 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/users?some_column=eq.someValue'*

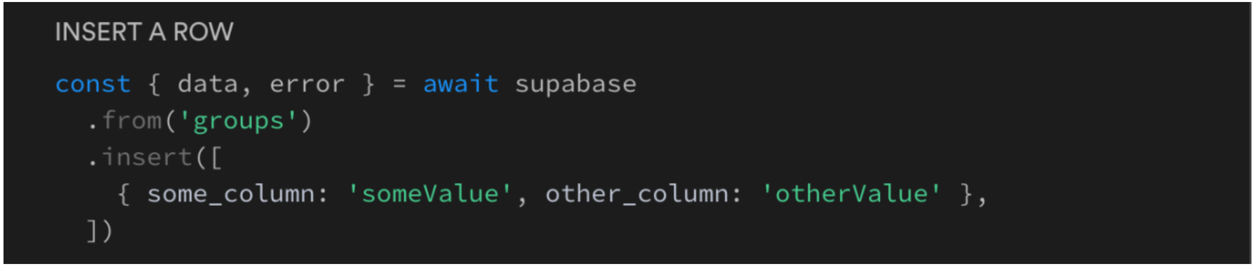


DELETE MATCHING ROWS

```
const { data, error } = await supabase
  .from('users')
  .delete()
  .eq('some_column', 'someValue')
```

## Groups

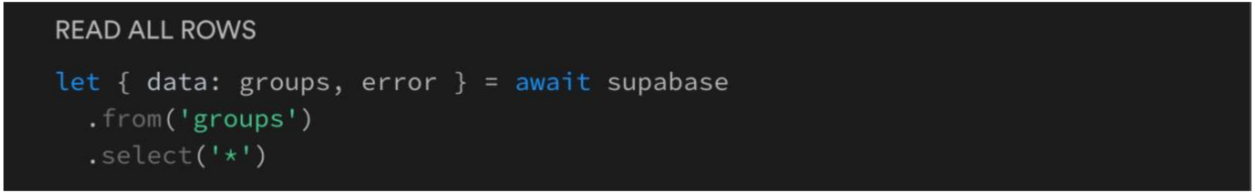
**Create Group:** First, click the add icon to create a Group. Click the save icon to update the row.
*curl -X POST 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/groups'*



INSERT A ROW

```
const { data, error } = await supabase
  .from('groups')
  .insert([
    { some_column: 'someValue', other_column: 'otherValue' },
  ])
```

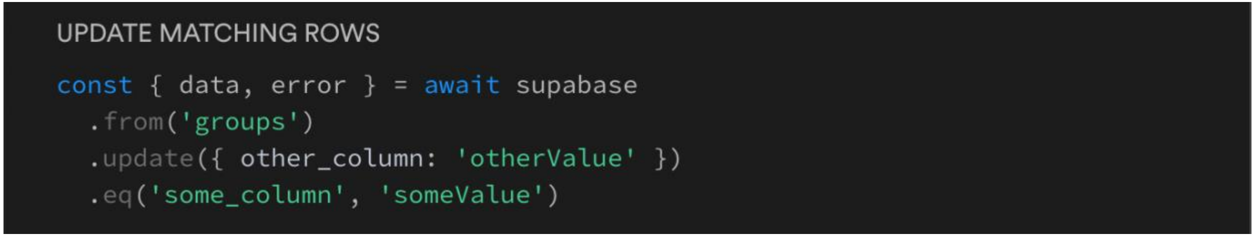
**Display Group:** Navigate to the Groups page to see the list of groups.
*curl 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/groups?select=*'*



READ ALL ROWS

```
let { data: groups, error } = await supabase
  .from('groups')
  .select('*')
```

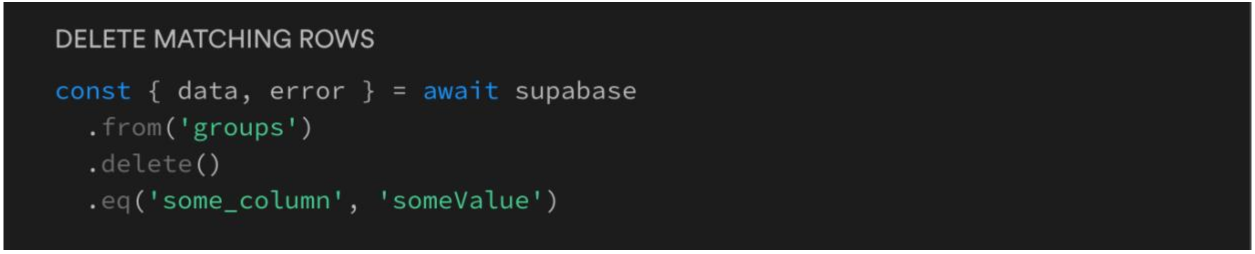
**Edit Group:** Click on the Group to edit. Click the save icon to update the row.
curl -X POST 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/groups'



UPDATE MATCHING ROWS

```
const { data, error } = await supabase
  .from('groups')
  .update({ other_column: 'otherValue' })
  .eq('some_column', 'someValue')
```

**Delete Group:** Click the delete icon to delete the Group.
curl -X DELETE 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/groups?some_column=eq.someValue'

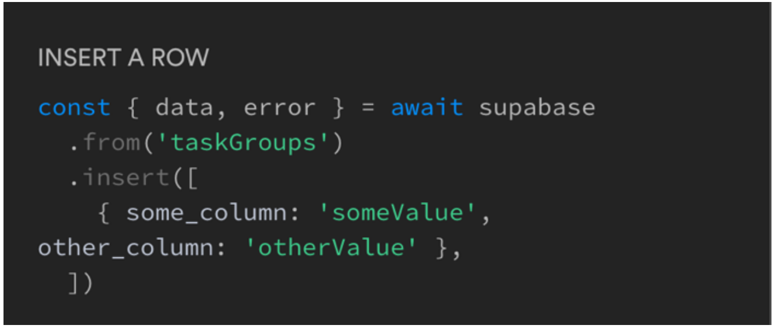


DELETE MATCHING ROWS

```
const { data, error } = await supabase
  .from('groups')
  .delete()
  .eq('some_column', 'someValue')
```

## Task Groups

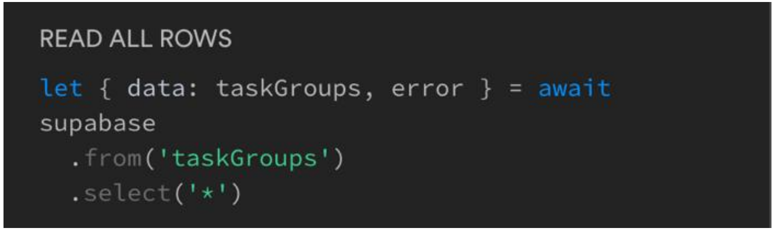
**Create taskGroup:** After adding a task item, click the save button to create the taskGroup.
*curl -X POST 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskGroups'*



INSERT A ROW

```
const { data, error } = await supabase
  .from('taskGroups')
  .insert([
    { some_column: 'someValue',
other_column: 'otherValue' },
  ])
```

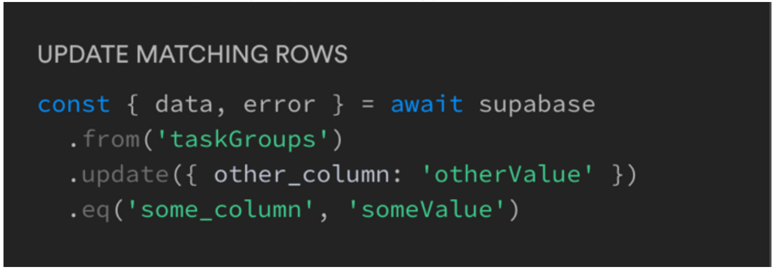
**Display taskGroups:** Created taskGroups will be added and displayed on the taskGroups page.
*curl 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskGroups?select=*'*



READ ALL ROWS

```
let { data: taskGroups, error } = await
supabase
  .from('taskGroups')
  .select('*')
```

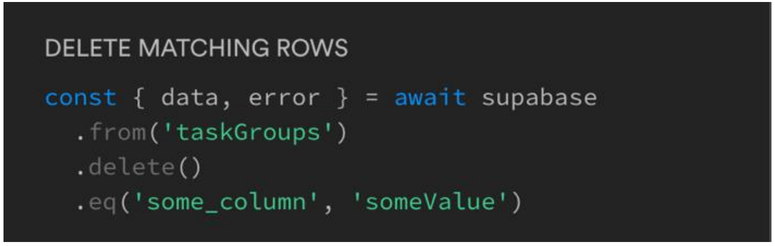
**Edit taskGroup:** Users can click the edit icon to edit taskGroup details or add tasksItems.
*curl -X PATCH 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskGroups?some_column=eq.someValue'*



UPDATE MATCHING ROWS

```
const { data, error } = await supabase
  .from('taskGroups')
  .update({ other_column: 'otherValue' })
  .eq('some_column', 'someValue')
```

**Delete taskGroup:** Users can delete a taskGroup and its tasks by clicking the delete icon.
*curl -X DELETE 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskGroups?some_column=eq.someValue'*

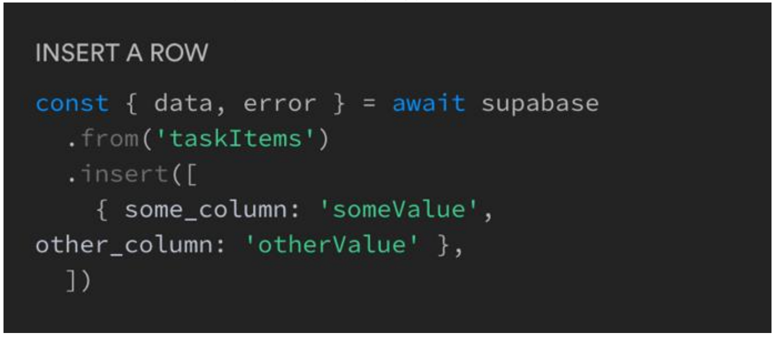


DELETE MATCHING ROWS

```
const { data, error } = await supabase
  .from('taskGroups')
  .delete()
  .eq('some_column', 'someValue')
```

## Task Items

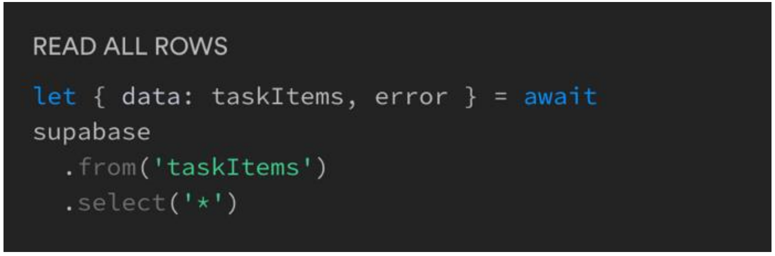
**Create taskItems:** Users can click the add icon to create a taskItem. Click the save icon to update the row.
*curl -X POST 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskItems'*



INSERT A ROW

```
const { data, error } = await supabase
  .from('taskItems')
  .insert([
    { some_column: 'someValue',
other_column: 'otherValue' },
  ])
```

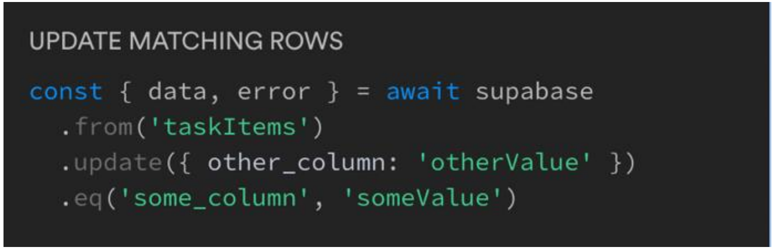
**Display taskItems:** User can open a taskGroup to see the taskItems.
*curl 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskItems?select=*'*



READ ALL ROWS

```
let { data: taskItems, error } = await
supabase
  .from('taskItems')
  .select('*')
```

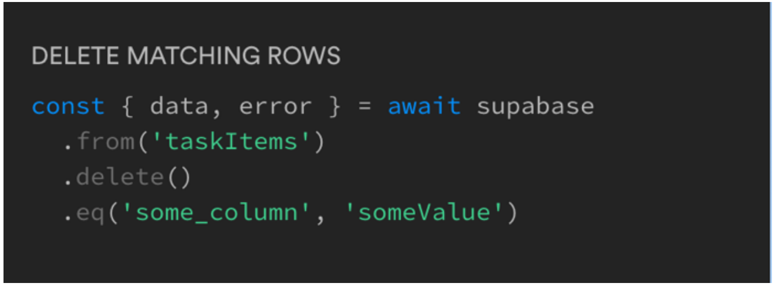
**Edit taskItem:** Click a taskItem to edit. Click the save icon to update the row.
*curl -X PATCH 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskItems?some_column=eq.someValue'*



UPDATE MATCHING ROWS

```
const { data, error } = await supabase
  .from('taskItems')
  .update({ other_column: 'otherValue' })
  .eq('some_column', 'someValue')
```

**Delete taskItem:** Click the delete icon to delete a taskItem. Click the save icon to update the row.
*curl -X DELETE 'https://ifaapkibhuniyxhgyrvr.supabase.co/rest/v1/taskItems?some_column=eq.someValue'*



DELETE MATCHING ROWS

```
const { data, error } = await supabase
  .from('taskItems')
  .delete()
  .eq('some_column', 'someValue')
```

**Example: JSON Object (taskGroups)**

```
{
        "id": 10000001,
        "name": "Algebra Final",
        "description": "Do these steps to prepare for the final.",
        "taskItems": [
                {
                        "id": 10000001,
                        "name": "Text",
                        "instructions": "Finish reading all assigned text."
                  },
                {
                        "id": 10000002,
                        "name": "Practice",
                        "instructions": "Do several practice questions."
                  },
                {
                        "id": 10000003,
                        "name": "Review",
                        "instructions": "Review previous tests."
                  },
                {
                        "id": 10000004,
                        "name": "Sleep",
                        "instructions": "You’ve earned it!"
                  },
        ]
}
```