# Guide to Setting Up and Using Supabase

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**Introduction**

Supabase is an open-source Backend-as-a-Service (BaaS) platform that provides features like real-time databases, authentication, and serverless functions. It simplifies backend development while offering robust integrations for modern applications.

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**Prerequisites**

1. Basic knowledge of programming.
2. A web browser.
3. An account with Supabase.
4. A code editor like VS Code.

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**Setting Up Supabase**

**Step 1: Create a Supabase Account**

1. Visit the Supabase website and click on **Sign Up**.
2. Use your email or GitHub account to create an account.

**Step 2: Create a New Project**

1. After logging in, go to the **Dashboard**: https://supabase.com/dashboard/projects
2. Click **New Project**.
3. Setup your **Organization** (just leave the default values and click **Create organization**).
4. Fill in the project details:
    - **Project Name**: A unique name for your project.
    - **Database Password**: Choose a strong password (**yourself** or click **Generate a password** and copy it to note it down).
    - **Region**: Select **Central Europe (Zurich)** or **Central EU (Frankfurt)**.
5. Click **Create New Project**.

**Step 3: Wait for the Setup** to finish.

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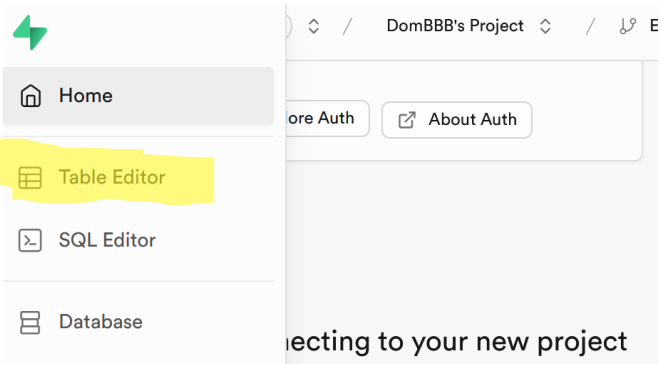
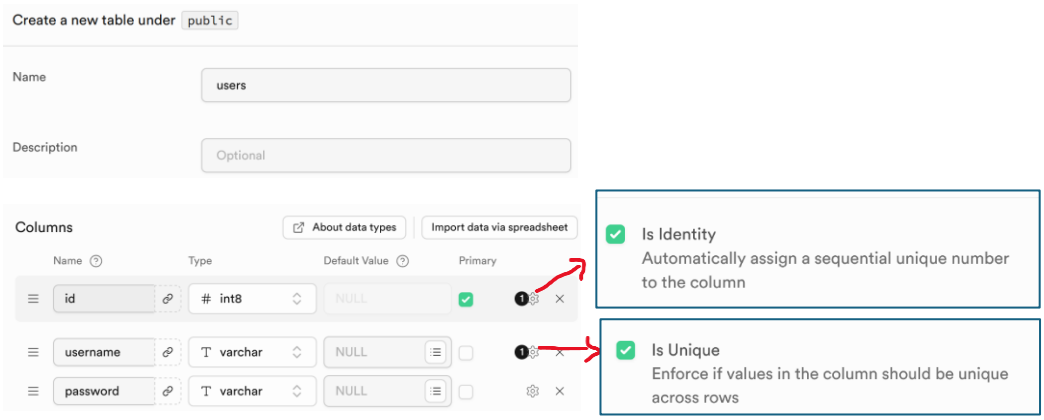
## Using Supabase

### Step 4: Database

1. Navigate to the **Table Editor** tab.

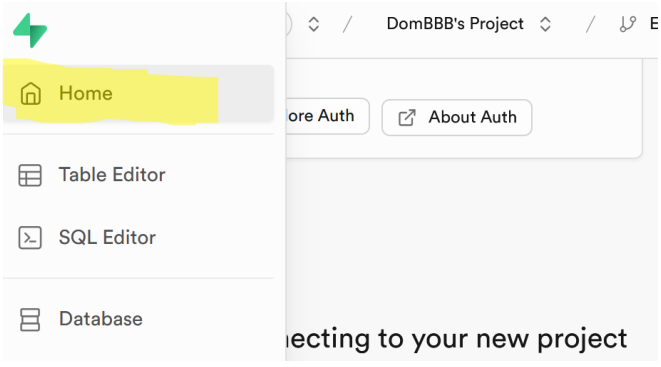



2. Click **Create a new table**.
3. Fill in the **name** and the **columns** (specify for each column the type of data you want to store).
4. Click **Save**.
5. Example: To create a "users" table:

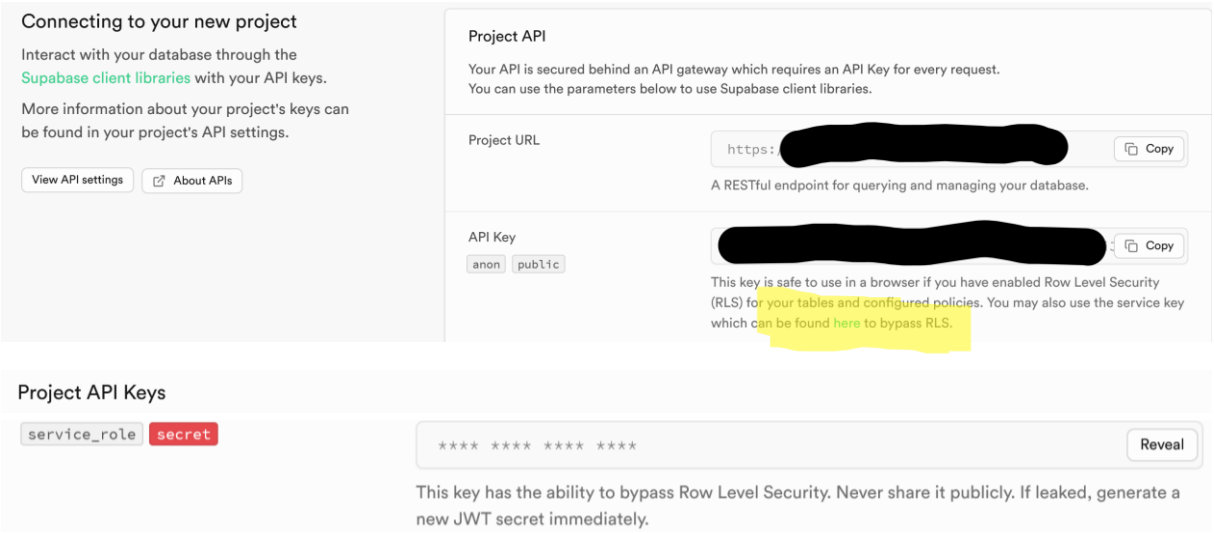



### Step 5: Access from Python

1. Navigate to the **Home** tab.



2. Scroll down to find your **Project URL** and **API Key (click the yellow marked text to find the SERVICE_ROLE SECRET key and use this one)**




3. Install the library using pip in your cmd/terminal: **pip install supabase**
4. Initializing Supabase in Python:

```
from supabase import create_client, Client

# Replace these with your Supabase project details
SUPABASE_URL = "https://<your-project-ref>.supabase.co"
SUPABASE_KEY = "<your-supabase-key>"

supabase: Client = create_client(SUPABASE_URL, SUPABASE_KEY)
```

5. Write data to Supabase:

```
def insert_user(username: str, password: str):
  try:
    response = supabase.table("users").insert({"username": username,
                "password": password}).execute()
    return response.data
  except Exception as e:
    return e


insert_user("john_doe_5", "secure_password123")
```

6. Read data from Supabase:

*Getting all users*

```
def get_all_users():
  try:
    response = supabase.table("users").select("*").execute()
    return response.data
```

```
    except Exception as e:
        return e

get_all_users()
```

*Getting specific user*

```
def get_user_by_username(username: str):
    try:
        response = supabase.table("users").select("*").eq("username",
                    username).execute()
        return response.data
    except Exception as e:
        return e

get_user_by_username("john_doe")
```

7. Update data to Supabase:

```
def update_password(username: str, new_password: str):
    try:
        response = supabase.table("users").update({"password":
                    new_password}).eq("username", username).execute()
        return response.data
    except Exception as e:
        return e

update_password("john_doe", "new_secure_password456")
```

8. Delete data from Supabase:

```
def delete_user(username: str):
    try:
        response = supabase.table("users").delete().eq("username",
                     username).execute()
        return response.data
    except Exception as e:
        return e

delete_user("john_doe")
```

**Step 6: View your Data**

You can always get a live view of your table data when going back to the table editor (Step 4) and select the table you are interested in.