

Google Signup Implementation Django React

i want to impliment google signup in my project backend
django rest and frontend react

To implement Google Sign-Up in your project (Django REST for the backend and React for the frontend), follow these steps:

Backend (Django REST Framework)

You'll use **django-allauth** and **dj-rest-auth** to handle authentication.

1. Install Required Packages

Run the following command:

```
sh

pip install dj-rest-auth django-allauth social-auth-app-django
```

2. Configure Django Settings

Add the required apps to `INSTALLED_APPS` in `settings.py` :

```
python

INSTALLED_APPS = [
    'django.contrib.sites',
    'allauth',
    'allauth.account',
    'allauth.socialaccount',
    'allauth.socialaccount.providers.google',
    'rest_framework',
    'dj_rest_auth',
    'dj_rest_auth.registration',
]

SITE_ID = 1 # Required for django-allauth

SOCIALACCOUNT_PROVIDERS = {
```

```

    "google": {
        "SCOPE": ["profile", "email"],
        "AUTH_PARAMS": {"access_type": "online"},
    }
}

REST_AUTH_SERIALIZERS = {
    'USER_DETAILS_SERIALIZER': 'your_app.serializers.CustomUserSerializer',
}

```

3. Update `urls.py`

Modify your Django `urls.py`:

```

python

from django.urls import path, include

urlpatterns = [
    path('auth/', include('dj_rest_auth.urls')),
    path('auth/registration/', include('dj_rest_auth.registration.urls')),
    path('auth/google/', include('allauth.socialaccount.urls')),
]

```

4. Create and Configure Google OAuth App

1. Go to **Google Cloud Console** → **Credentials**.
2. Create a new OAuth 2.0 client ID.
3. Set the **redirect URI** to:

```

bash

http://localhost:8000/auth/google/callback/

```

4. Copy the **Client ID** and **Client Secret**.

5. Set Up Environment Variables

In `settings.py`, add:

```

python

```

```
SOCIALACCOUNT_PROVIDERS["google"]["CLIENT_ID"] = "your-client-id"
SOCIALACCOUNT_PROVIDERS["google"]["CLIENT_SECRET"] = "your-client-secret"
```

Frontend (React)

You'll use `react-oauth/google` to handle Google authentication.

1. Install Dependencies

Run:

```
sh

npm install @react-oauth/google axios react-toastify
```

2. Configure Google OAuth in React

In `index.js` or `App.js`:

```
jsx

import { GoogleOAuthProvider } from '@react-oauth/google';

const clientId = "your-google-client-id";

function App() {
  return (
    <GoogleOAuthProvider clientId={clientId}>
      { /* Your Routes or Components */ }
    </GoogleOAuthProvider>
  );
}

export default App;
```

3. Implement Google Login Button

Create a component `GoogleLoginButton.js`:

jsx

```
import { GoogleLogin } from '@react-oauth/google';
import axios from 'axios';
import { toast } from 'react-toastify';

const GoogleLoginButton = () => {
  const handleSuccess = async (response) => {
    try {
      const { credential } = response;
      const backendResponse = await axios.post("http://localhost:8000/auth/google/",
{
      token: credential,
    });

      console.log("Login Success:", backendResponse.data);
      toast.success("Google Login Successful!");
    } catch (error) {
      console.error("Login Error:", error);
      toast.error("Google Login Failed!");
    }
  };

  const handleFailure = () => {
    toast.error("Google Login Failed!");
  };

  return (
    <GoogleLogin
      onSuccess={handleSuccess}
      onError={handleFailure}
    />
  );
};

export default GoogleLoginButton;
```

4. Add the Button in Your Login Component

jsx

```
import GoogleLoginButton from './GoogleLoginButton';
```

```
const Login = () => {  
  return (  
    <div>  
      <h2>Login</h2>  
      <GoogleLoginButton />  
    </div>  
  );  
};  
  
export default Login;
```

Final Steps

- Ensure your **Django backend** is running (`python manage.py runserver`).
- Run your **React app** (`npm start`).
- Click the Google login button, and it should authenticate users with your backend.

Want me to refine any step or add token handling? 🚀