Django REST Framework Assignment Documentation

# ✅ 1. Fetch a Random Joke (Public API)

Method: GET  
  
URL: http://127.0.0.1:8000/api/joke/  
  
Headers: None  
  
Expected Response:  
{  
 "joke": "Why don’t scientists trust atoms? Because they make up everything!"  
}  
  
Testing: Open in browser or Postman (GET method)

# ✅ 2. Django Setup & Requirements

requirements.txt includes:  
- django  
- djangorestframework  
- requests  
- twilio  
- sendgrid  
- razorpay  
- allauth  
  
Testing: Run `pip install -r requirements.txt`

# ✅ 3–6. Doctor CRUD API with Serialization, Views, and Routing

✅ Create Doctor (POST)  
URL: http://127.0.0.1:8000/api/doctors/  
Method: POST  
Body:  
{  
 "name": "Dr A",  
 "specialty": "Cardio",  
 "contact": "99999",  
 "city": "Ahmedabad"  
}  
Auth: ❌  
  
✅ List Doctors (GET)  
URL: http://127.0.0.1:8000/api/doctors/  
Method: GET  
Auth: ❌  
  
✅ Get Doctor by ID (GET)  
URL: http://127.0.0.1:8000/api/doctors/1/  
Method: GET  
Auth: ❌  
  
✅ Update Doctor by ID (PUT)  
URL: http://127.0.0.1:8000/api/doctors/1/  
Method: PUT  
Body: (same as create)  
Auth: ❌  
  
✅ Delete Doctor by ID (DELETE)  
URL: http://127.0.0.1:8000/api/doctors/1/  
Method: DELETE  
Auth: ❌  
  
Test all above in Postman.

# ✅ 7. Pagination in Doctors List

Pagination Enabled: Yes (Page Size = 5)  
  
URL: http://127.0.0.1:8000/api/doctors/?page=1  
Method: GET  
  
Expected: JSON with `results`, `count`, `next`, `previous`

# ✅ 8. Database Settings

Database: SQLite3 (default Django settings)  
  
Test: Add/edit/view Doctor entries from API and confirm DB update (db.sqlite3)

# ✅ 9. Project & App Created

Project Name: myproject  
App Name: doctor\_finder  
  
Test: Run `python manage.py runserver` and visit /admin and API endpoints.

# ✅ 10. Social Auth, OTP, Email API

✅ Google Login  
Configured via django-allauth and Google API Console.  
  
✅ OTP via Twilio  
Used Twilio client to send OTP via registered number.  
  
✅ Email via SendGrid  
Email sent using SendGrid Mail client.  
  
Test: Use endpoints you created for OTP and Google auth.

# ✅ 11–12. REST API Design with CRUD

Covered in Task 3–6 above with proper HTTP methods and RESTful resource URLs.

# ✅ 13. User Auth APIs (Register, Login, Logout, Protected)

✅ Register  
Method: POST  
URL: http://127.0.0.1:8000/api/register/  
Body:  
{  
 "username": "diya",  
 "password": "1234"  
}  
  
✅ Login  
Method: POST  
URL: http://127.0.0.1:8000/api/login/  
Body:  
{  
 "username": "diya",  
 "password": "1234"  
}  
Returns token.  
  
✅ Logout  
Method: POST  
URL: http://127.0.0.1:8000/api/logout/  
Headers:  
Authorization: Token your\_token\_here  
  
✅ Protected View  
Method: GET  
URL: http://127.0.0.1:8000/api/protected/  
Headers:  
Authorization: Token your\_token\_here

# ✅ 14. Weather API (OpenWeatherMap)

Method: GET  
URL: http://127.0.0.1:8000/api/weather/?city=Ahmedabad  
  
Response: Current weather data.  
  
Auth: ❌  
  
Tested with API key from OpenWeatherMap.

# ✅ 15. Google Maps Geocoding API

Method: GET  
URL: http://127.0.0.1:8000/api/geocode/?address=Ahmedabad  
  
Returns: Latitude and Longitude  
  
Auth: ❌

# ✅ 16. GitHub API Integration

Method: GET  
URL: http://127.0.0.1:8000/api/github/?user=octocat  
  
Returns: List of public repos of user.

# ✅ 17. Twitter API (Mock / Sample Only)

Method: GET  
URL: http://127.0.0.1:8000/api/twitter/?user=username  
  
Note: Twitter API access is paid. Can be mocked if real keys not available.

# ✅ 18. Country Info API

Method: GET  
URL: http://127.0.0.1:8000/api/country/?name=India  
  
Returns: population, currency, language

# ✅ 19. Send Email via SendGrid

Method: POST  
URL: http://127.0.0.1:8000/api/send-email/  
Body:  
{  
 "to": "test@example.com",  
 "subject": "Hello",  
 "message": "This is a test"  
}  
  
Check SendGrid dashboard for success.

# ✅ 20. Send OTP via Twilio

Method: POST  
URL: http://127.0.0.1:8000/api/send-otp/  
Body:  
{  
 "phone": "+919999999999"  
}

# ✅ 21. Stripe Payment Integration

Method: POST  
URL: http://127.0.0.1:8000/api/stripe-payment/  
Body:  
{  
 "amount": 500  
}  
  
Returns: Stripe session or success URL.

# ✅ 22. Google Maps Location Display (Doctors)

Method: GET  
URL: http://127.0.0.1:8000/api/doctors-map/?city=Ahmedabad  
  
Returns: List of doctors with lat/lng for Google Maps