

TopTube World Pro - YouTube API Implementation Document

Overview

Website: <https://mostpopularyoutubechannel.com>

Purpose: YouTube analytics platform tracking top channels across 197 countries

API Used: YouTube Data API v3

API Integration Details

Endpoints Used

1. Channels.list

- **Purpose:** Fetch channel statistics and metadata
- **Parts:** snippet , statistics
- **Fields Retrieved:**
 - Channel title
 - Description
 - Thumbnail URL
 - Subscriber count
 - View count
 - Video count
- **Quota Cost:** 1 unit per call

2. Search.list

- **Purpose:** Discover YouTube channels
- **Type:** channel
- **Usage:** Admin searches to add new channels

- **Quota Cost:** 100 units per call
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Data Flow Architecture

```
[YouTube Data API v3]
  |
  v
[FastAPI Backend Server]
  |
  v
[MongoDB Database]
  |
  v
[React Frontend Website]
  |
  v
[Public Users]
```

How YouTube Data is Displayed

1. Homepage

- World map showing top channel per country
- Global subscriber leaderboard
- Fastest growing channels section

2. Country Pages (/country/{code})

- Top 10 YouTube channels for each country
- Subscriber counts, view counts, growth metrics
- Channel thumbnails and descriptions

3. Channel Pages (/channel/{id})

- Individual channel statistics

- Subscriber count with real-time updates
- 24-hour growth metrics
- Historical ranking data

4. Leaderboard (/leaderboard)

- Global top 100 most subscribed channels
- Sortable by subscribers, views, growth

5. Top 100 Page (/top-100)

- Dedicated SEO page for top 100 YouTubers
- FAQ section about top creators

Data Refresh Schedule

Data Type	Refresh Frequency	API Calls
Channel Statistics	Every 4 hours	1 unit/channel
New Channel Discovery	On-demand	100 units/search
Rankings Calculation	After each refresh	0 (local calculation)

Data Storage Policy

- **Primary Data:** Refreshed every 4 hours (always current)
- **Historical Data:** Stored 30-90 days for growth calculations
- **Derived Metrics:** Calculated locally (rankings, growth %)
- **Compliance:** Data refreshed regularly per YouTube ToS

User Features Using YouTube Data

1. **Browse Rankings** - View top channels by country

2. **Compare Channels** - Side-by-side comparison tool
 3. **Track Growth** - 24-hour subscriber gain metrics
 4. **Search Channels** - Find specific YouTube creators
 5. **View Statistics** - Detailed channel analytics
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Screenshots

Homepage

- Global leaderboard with subscriber counts
- Country selection map

Channel Page

- Channel thumbnail, title, description
- Subscriber/view/video counts
- Growth metrics and viral status

Country Page

- Top 10 channels list
 - Country-specific rankings
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Technical Stack

- **Backend:** Python FastAPI
 - **Database:** MongoDB
 - **Frontend:** React.js
 - **Hosting:** Cloud-based deployment
 - **API Integration:** Official YouTube Data API v3 client
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Contact

Website: <https://mostpopularyoutubechannel.com>

Purpose: Educational YouTube analytics for discovering global creators

Document created for YouTube API quota increase request