**YouTube API Documentation**

**1. YouTube Data API: Search**

**API Name: Search for Videos**

**API Definition:**

* **API:** https://www.googleapis.com/youtube/v3/search
* **Method:** GET
* **Parameters:**
  + part (required): Specifies the parts of the video resource to include in the response. Common value is snippet.
  + q (required): Search query term.
  + type (optional): The type of resource to return. Common values are video, channel, playlist. Default is video.
  + maxResults (optional): The maximum number of results to return. Default is 5, maximum is 50.
  + key (required): API key for accessing the YouTube Data API.
* **Description:** Searches for videos, playlists, or channels based on the specified query term.
* **Response Format:** JSON

**Example Request:**

GET https://www.googleapis.com/youtube/v3/search?part=snippet&q=coding+tutorial&type=video&maxResults=5&key=YOUR\_API\_KEY

**Example Response:**

{

"kind": "youtube#searchListResponse",

"etag": "etag\_value",

"items": [

{

"kind": "youtube#searchResult",

"etag": "etag\_value",

"id": {

"kind": "youtube#video",

"videoId": "dQw4w9WgXcQ"

},

"snippet": {

"publishedAt": "2024-07-01T00:00:00Z",

"channelId": "UC\_x5XG1OV2P6uZZ5FSM9Ttw",

"title": "Coding Tutorial for Beginners",

"description": "This is a tutorial for beginners to learn coding.",

"thumbnails": {

"default": {

"url": "https://example.com/thumbnail.jpg"

}

}

}

}

]

}

**Definition:**  
The Search for Videos API allows developers to search for videos on YouTube based on specific query terms. This API is useful for integrating YouTube video search functionality into applications, enabling users to discover relevant content directly from the app.

**2. YouTube Data API: Video Details**

**API Name: Get Video Details**

**API Definition:**

* **API:** https://www.googleapis.com/youtube/v3/videos
* **Method:** GET
* **Parameters:**
  + part (required): Specifies the parts of the video resource to include in the response. Common value is snippet,contentDetails,statistics.
  + id (required): Comma-separated list of video IDs.
  + key (required): API key for accessing the YouTube Data API.
* **Description:** Retrieves details about one or more YouTube videos, including title, description, and statistics.
* **Response Format:** JSON

**Example Request:**

GET https://www.googleapis.com/youtube/v3/videos?part=snippet,contentDetails,statistics&id=dQw4w9WgXcQ&key=YOUR\_API\_KEY

**Example Response:**

{

"kind": "youtube#videoListResponse",

"etag": "etag\_value",

"items": [

{

"kind": "youtube#video",

"etag": "etag\_value",

"id": "dQw4w9WgXcQ",

"snippet": {

"publishedAt": "2024-07-01T00:00:00Z",

"channelId": "UC\_x5XG1OV2P6uZZ5FSM9Ttw",

"title": "Coding Tutorial for Beginners",

"description": "This is a tutorial for beginners to learn coding.",

"thumbnails": {

"default": {

"url": "https://example.com/thumbnail.jpg"

}

}

},

"contentDetails": {

"duration": "PT10M30S",

"dimension": "2d",

"definition": "hd",

"caption": "true"

},

"statistics": {

"viewCount": "123456",

"likeCount": "7890",

"dislikeCount": "123",

"commentCount": "456"

}

}

]

}

**Definition:**  
The Get Video Details API provides detailed information about one or more YouTube videos, including their metadata and statistics. This API is valuable for applications that need to display detailed video information, such as views, likes, and comments.

**3. YouTube Data API: Channel Details**

**API Name: Get Channel Details**

**API Definition:**

* **API:** https://www.googleapis.com/youtube/v3/channels
* **Method:** GET
* **Parameters:**
  + part (required): Specifies the parts of the channel resource to include in the response. Common value is snippet,contentDetails,statistics.
  + id (required): Comma-separated list of channel IDs.
  + key (required): API key for accessing the YouTube Data API.
* **Description:** Retrieves details about one or more YouTube channels, including title, description, and statistics.
* **Response Format:** JSON

**Example Request:**

GET https://www.googleapis.com/youtube/v3/channels?part=snippet,contentDetails,statistics&id=UC\_x5XG1OV2P6uZZ5FSM9Ttw&key=YOUR\_API\_KEY

**Example Response:**

{

"kind": "youtube#channelListResponse",

"etag": "etag\_value",

"items": [

{

"kind": "youtube#channel",

"etag": "etag\_value",

"id": "UC\_x5XG1OV2P6uZZ5FSM9Ttw",

"snippet": {

"title": "YouTube Developers",

"description": "The official YouTube Developers channel.",

"thumbnails": {

"default": {

"url": "https://example.com/thumbnail.jpg"

}

}

},

"contentDetails": {

"relatedPlaylists": {

"uploads": "UUX5XG1OV2P6uZZ5FSM9Ttw"

}

},

"statistics": {

"viewCount": "1000000",

"subscriberCount": "50000",

"hiddenSubscriberCount": false,

"videoCount": "200"

}

}

]

}

**Definition:**  
The Get Channel Details API provides detailed information about a YouTube channel, including its title, description, and statistics. This API is useful for displaying channel profiles and statistics within applications.

**4. YouTube Data API: Playlist Details**

**API Name: Get Playlist Details**

**API Definition:**

* **API:** https://www.googleapis.com/youtube/v3/playlists
* **Method:** GET
* **Parameters:**
  + part (required): Specifies the parts of the playlist resource to include in the response. Common value is snippet,contentDetails.
  + id (required): Comma-separated list of playlist IDs.
  + key (required): API key for accessing the YouTube Data API.
* **Description:** Retrieves details about one or more YouTube playlists, including title, description, and items count.
* **Response Format:** JSON

**Example Request:**

GET https://www.googleapis.com/youtube/v3/playlists?part=snippet,contentDetails&id=PLBCF2DAC6D44F8E9D&key=YOUR\_API\_KEY

**Example Response:**

{

kind": "youtube#playlistListResponse",

"etag": "etag\_value",

"items": [

{

"kind": "youtube#playlist",

"etag": "etag\_value",

"id": "PLBCF2DAC6D44F8E9D",

"snippet": {

"title": "YouTube Data API Playlist",

"description": "A playlist showcasing the YouTube Data API.",

"thumbnails": {

"default": {

"url": "https://example.com/thumbnail.jpg"

}

}

},

"contentDetails": {

"itemCount": 10

}

}

]

}

**Definition:**  
The Get Playlist Details API provides information about a YouTube playlist, including its title, description, and number of items. This API is useful for applications that need to showcase or interact with specific playlists on YouTube.

**5. YouTube Data API: Comment Threads**

**API Name: Get Comment Threads**

**API Definition:**

* **API:** https://www.googleapis.com/youtube/v3/commentThreads
* **Method:** GET
* **Parameters:**
  + part (required): Specifies the parts of the comment thread resource to include in the response. Common value is snippet,replies.
  + videoId (required): The ID of the video for which to retrieve comments.
  + key (required): API key for accessing the YouTube Data API.
* **Description:** Retrieves comments for a specific video, including top-level comments and replies.
* **Response Format:** JSON

**Example Request:**

GET https://www.googleapis.com/youtube/v3/commentThreads?part=snippet,replies&videoId=dQw4w9WgXcQ&key=YOUR\_API\_KEY

**Example Response:**

{

"kind": "youtube#commentThreadListResponse",

"etag": "etag\_value",

"items": [

{

"kind": "youtube#commentThread",

"etag": "etag\_value",

"id": "Ugx\_7l4yPLn\_jQWZ-l\_4A",

"snippet": {

"videoId": "dQw4w9WgXcQ",

"topLevelComment": {

"kind": "youtube#comment",

"etag": "etag\_value",

"id": "Ugx\_7l4yPLn\_jQWZ-l\_4A",

"snippet": {

"authorDisplayName": "John Doe",

"authorProfileImageUrl": "https://example.com/profile.jpg",

"textDisplay": "Great video!",

"textOriginal": "Great video!",

"likeCount": 10,

"publishedAt": "2024-08-01T00:00:00Z"

}

}

}

}

]

}

**Definition:**  
The Get Comment Threads API allows developers to retrieve comments and replies for a specific video. This API is essential for applications that need to display or analyze user feedback on videos.