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CS249 – Project 2

Youtube's Got Talent: A musical mashup
Web Service Documentation
Youtube

The Youtube API documentation is found here: <https://developers.google.com/youtube/>

Registering my app

I started by registering my app and obtaining the authentication codes necessary to use this API. Because Youtube is part of Google, this part was similar to registering Fusion Table access for the mobile apps in project one, so this step was relatively easy. (A detailed explanation of the steps can be found here: https://developers.google.com/youtube/registering_an_application)

Code samples

This is an interesting reference with examples of how to use Google APIs (in Javascript): <https://developers.google.com/api-client-library/javascript/samples/samples>
Specifically, here are sample code snippets for the Youtube API:
https://developers.google.com/youtube/v3/code_samples/javascript

You can import their code library to simply using their API. We may do this in the future.

Data API for searching Youtube videos

Right now, we are most interested in the Data API, which allows us to search Youtube videos and find the videos that we are interested in. I am assuming that from the Last.fm API, we are able to retrieve the name of an artist and their song. Using that piece of information, I want to be able to search Youtube videos for covers of that song.

The documentation for using the search portion of the API is found here: <https://developers.google.com/youtube/v3/docs/search>

There are many different parameters I can set, but right now I am most interested in part (whether you are searching the title of the video or its description), maxResults (number of videos retrieved), and q (query being searched). In the future, we may want to look at parameters to sort the results in order of popularity or use other parameters to narrow down the results further.

The example of a request is this:

```
GET
https://www.googleapis.com/youtube/v3/search?part=id&maxResults=10&q=Journey
+cover&key=AIzaSyCcN4ey0somnnylhMsHQD62DeZPOFtneGU
```

The search results are displayed in JSON format.

Here's the response in JSON format:

```
{
  "id": "ALph_u2iee8",
  "kind": "youtube#video",
  "etag": "\"\luEKunDQKPL9wdQIy7vaPTsm7fY/tjYZh7aLgf2ZIOiRZgg8YKg1zU\"",
  "snippet": {
    "publishedAt": "2011-10-09T12:20:54.000Z",
    "channelId": "UCgc00bfF_PvO_2AvqJZHXFg",
    "title": "Journey - Faithfully (Boyce Avenue acoustic cover) on iTunes",
    "description": "iTunes: http://iTunes.com/BoyceAvenue\nTickets: http://BoyceAvenue.com/Tour\nMerchandise: http://BoyceAvenue.com\n\nTickets:\n4/12 Snow College http://bit.ly/c7Ah1q\n4/13 SLC at In the Venue http://bit.ly/YDVrtK\n\nBoyce Avenue cover of Journey's song \"Faithfully\"\n\nAudio Produced by Alejandro Manzano & Daniel Manzano\nArrangement by Alejandro\nRecorded & Engineered by Adam Barber\nMixed & Mastered by Adam Barber\nAdditional Mixing & Mastering by Alejandro & Daniel\nVideo Produced by Daniel & Alejandro\n\nFilmed at Clear Track Studios\nhttp://www.cleartrackstudios.com\n\nFacebook\nhttp://facebook.com/boyceavenue\n\nTwitter\nhttp://twitter.com/boyceavenue\n\nYouTube\nhttp://youtube.com/BoyceAvenue (Music Channel)\nhttp://youtube.com/BoyceAvenueExtras (Vlog Channel)\n\nOfficial Site\nhttp://boyceavenue.com",
    "thumbnails": {
      "default": {"url": "https://i.ytimg.com/vi/ALph_u2iee8/default.jpg"},
      "medium": {"url": "https://i.ytimg.com/vi/ALph_u2iee8/mqdefault.jpg"},
      "high": {"url": "https://i.ytimg.com/vi/ALph_u2iee8/hqdefault.jpg"}
    },
    "channelTitle": "boyceavenue",
    "categoryId": "10"
  },
  "status": {
    "uploadStatus": "processed",
    "privacyStatus": "public",
    "embeddable": true,
    "publicStatsViewable": false,
    "license": "youtube"
  }
}
```