

# Project 4 Task 2 – Random Joke+Image Generator

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## Description

The mobile application will use the Chuck Norris Jokes API to fetch a random joke based on user choice from

- Free text search
- And also prompt category to search for the user

Display it along with an image related to that category using - flickr.com/services/api/

The app will provide entertainment and humour to the users by delivering relevant and funny jokes.

- API Response of api.chucknorris.io/jokes/random?categories ["animal", "career", "celebrity", "dev", "explicit", "fashion", "food", "history", "money", "movie", "music", "political", "religion", "science", "sport", "travel"]

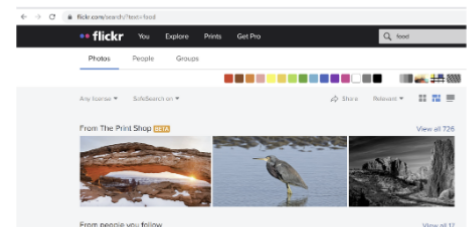
## APIs Used

## Response - api.chucknorris.io/jokes/search?categories

```
api.chucknorris.io/jokes/random?categories

{"categories": [], "created_at": "2020-01-05 13:42:19.104863", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "bctbwqesukmhrjjuumpaw", "updated_at": "2020-01-05 13:42:19.104863", "url": "https://api.chucknorris.io/jokes/bctbwqesukmhrjjuumpaw", "value": "If you ask Chuck Norris what time it is, he always says, 'Two seconds 'til.' After you ask, 'Two seconds 'til what?' he roundhouse kicks you in the face."}
```

## Response - flickr.com/search/?text=food

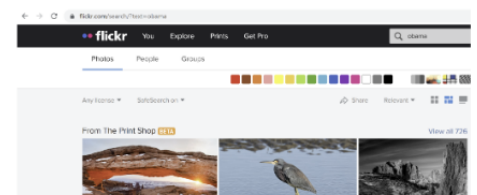


## Response - api.chucknorris.io/jokes/search?query=obama

```
api.chucknorris.io/jokes/search?query=obama

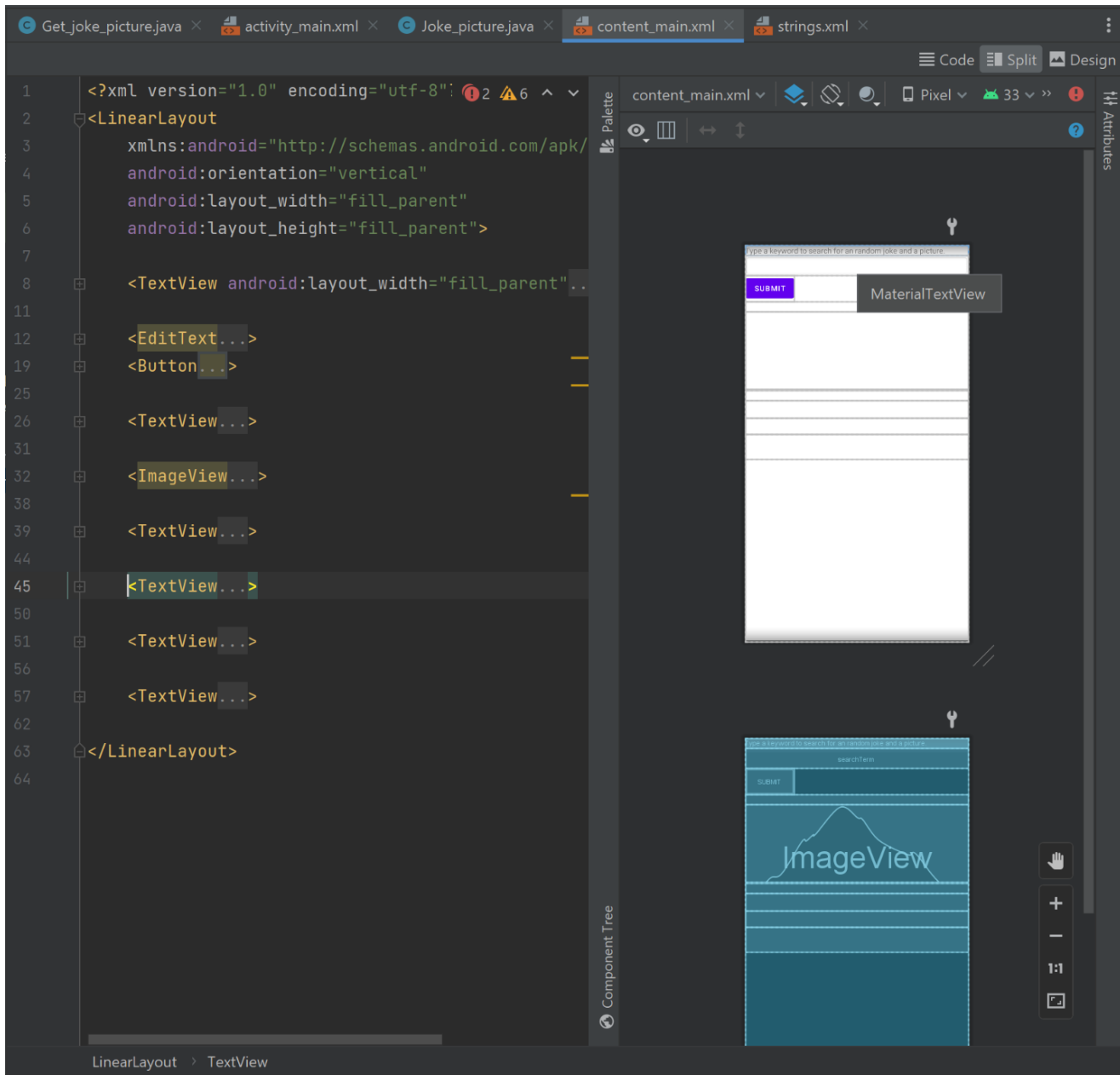
{"total": 19, "result": [{"categories": ["celebrity"], "created_at": "2020-01-05 13:42:26.262289", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "C0NgPQIQ30Yk1-63060", "updated_at": "2020-01-05 13:42:26.262289", "url": "https://api.chucknorris.io/jokes/C0NgPQIQ30Yk1-63060", "value": "Each time you rate this, Chuck Norris kills Obama with Charlie Sheen and says, 'Who's winning now!'", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:26.568859", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "1Cv9Kp15y28Ua_eC8Lco", "updated_at": "2020-01-05 13:42:26.568859", "url": "https://api.chucknorris.io/jokes/1Cv9Kp15y28Ua_eC8Lco", "value": "Michelle Obama turns only for Chuck Norris.", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:24.696555", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "H0u8-1F9C9u1u1VtQ", "updated_at": "2020-01-05 13:42:24.696555", "url": "https://api.chucknorris.io/jokes/H0u8-1F9C9u1u1VtQ", "value": "Obama Bin Laden wasn't that good at hiding. Obama just had to pay Chuck Norris to go on holiday for one night.", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:24.696555", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "3p2gPvQ02u1J3rVfVw", "updated_at": "2020-01-05 13:42:24.696555", "url": "https://api.chucknorris.io/jokes/3p2gPvQ02u1J3rVfVw", "value": "A little know fact is that ObamaCare pays for Morphine, Oxycotin and reconstructive surgery for those few survivors of a Chuck Norris beating.", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:24.696555", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "503PvR_Pk210521V328", "updated_at": "2020-01-05 13:42:24.696555", "url": "https://api.chucknorris.io/jokes/503PvR_Pk210521V328", "value": "Chuck Norris knows where the Navy Seal's that killed Osama bin Laden it is something that even President Obama does not know or will ever know.", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:25.899703", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "E338kgP5A0dQngt-4p", "updated_at": "2020-01-05 13:42:25.899703", "url": "https://api.chucknorris.io/jokes/E338kgP5A0dQngt-4p", "value": "Like President Obama Chuck Norris also recieved the Nobel peace prize for doing nothing, but in Chucks case millions of lives were saved.", "categories": ["political"], "created_at": "2020-01-05 13:42:26.62804", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "224Na5220d8u-j0-82", "updated_at": "2020-01-05 13:42:26.62804", "url": "https://api.chucknorris.io/jokes/224Na5220d8u-j0-82", "value": "Chuck Norris knows where Barack Obama was born.", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:26.194739", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "e09WVlQ32-3uhenQ", "updated_at": "2020-01-05 13:42:26.194739", "url": "https://api.chucknorris.io/jokes/e09WVlQ32-3uhenQ", "value": "Like this fact if Chuck Norris should kill Obama stillie this fact if Chuck Norris should roundhouse kick you.", "categories": ["celebrity"], "created_at": "2020-01-05 13:42:26.194739", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "F469f46Qs4308Cv5NQQ", "updated_at": "2020-01-05 13:42:26.194739", "url": "https://api.chucknorris.io/jokes/F469f46Qs4308Cv5NQQ", "value": "Trin: We have the best nuclear weapons (Obama), we have Chuck Norris.", "categories": ["political"], "created_at": "2020-01-05 13:42:29.296379", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "3g49-x157uVv978YkA", "updated_at": "2020-01-05 13:42:29.296379", "url": "https://api.chucknorris.io/jokes/3g49-x157uVv978YkA", "value": "If Chuck Norris was black, Obama would have been the US 4th black president.", "categories": ["political"], "created_at": "2020-01-05 13:42:29.855323", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "hyG9N06043r3Vv4eQ", "updated_at": "2020-01-05 13:42:29.855323", "url": "https://api.chucknorris.io/jokes/hyG9N06043r3Vv4eQ", "value": "Chuck Norris punched Barack Obama in the face, And fucked Michelle.", "categories": ["political"], "created_at": "2020-01-05 13:42:29.855323", "url": "https://api.chucknorris.io/jokes/11T594273y5rWfMDIVQ", "value": "Chuck Norris went to the white house and crapped and pissed on President Barack Obama's desk, just because he is Chuck Norris.", "categories": ["political"], "created_at": "2020-01-05 13:42:29.855323", "icon_url": "https://assets.chucknorris.host/img/avatar/chuck-norris.png", "id": "11T594273y5rWfMDIVQ", "updated_at": "2020-01-05 13:42:29.855323", "url": "https://api.chucknorris.io/jokes/11T594273y5rWfMDIVQ", "value": "Chuck Norris went to the white house and crapped and pissed on President Barack Obama's desk, just because he is Chuck Norris."}]}
```

## Response - flickr.com/search/?text=obama



# 1. Implement a native Android application

a. Has at least three different kinds of views in your Layout (TextView, EditText, ImageView, Button)



b. Requires input from the user



11:38

## Random Joke Generator

Type a keyword to search for an random joke and a picture.

SUBMIT

### c. Makes an HTTP request (using an appropriate HTTP method) to your web service

My application does an HTTP GET request in GetPicture.java. The HTTP request is:

**"https://ipraharmacmu-fictional-umbrella-9p69p66969v3p79-8080.preview.app.github.dev/getAnInterestingPicture?searchWord="+searchWord** where searchWord is the user's search term. The search method makes this request of my web application, parses the returned JSON to find the picture URL, joke categories and joke from **Chuck Norris API**, and returns the bit image of the picture and Joke



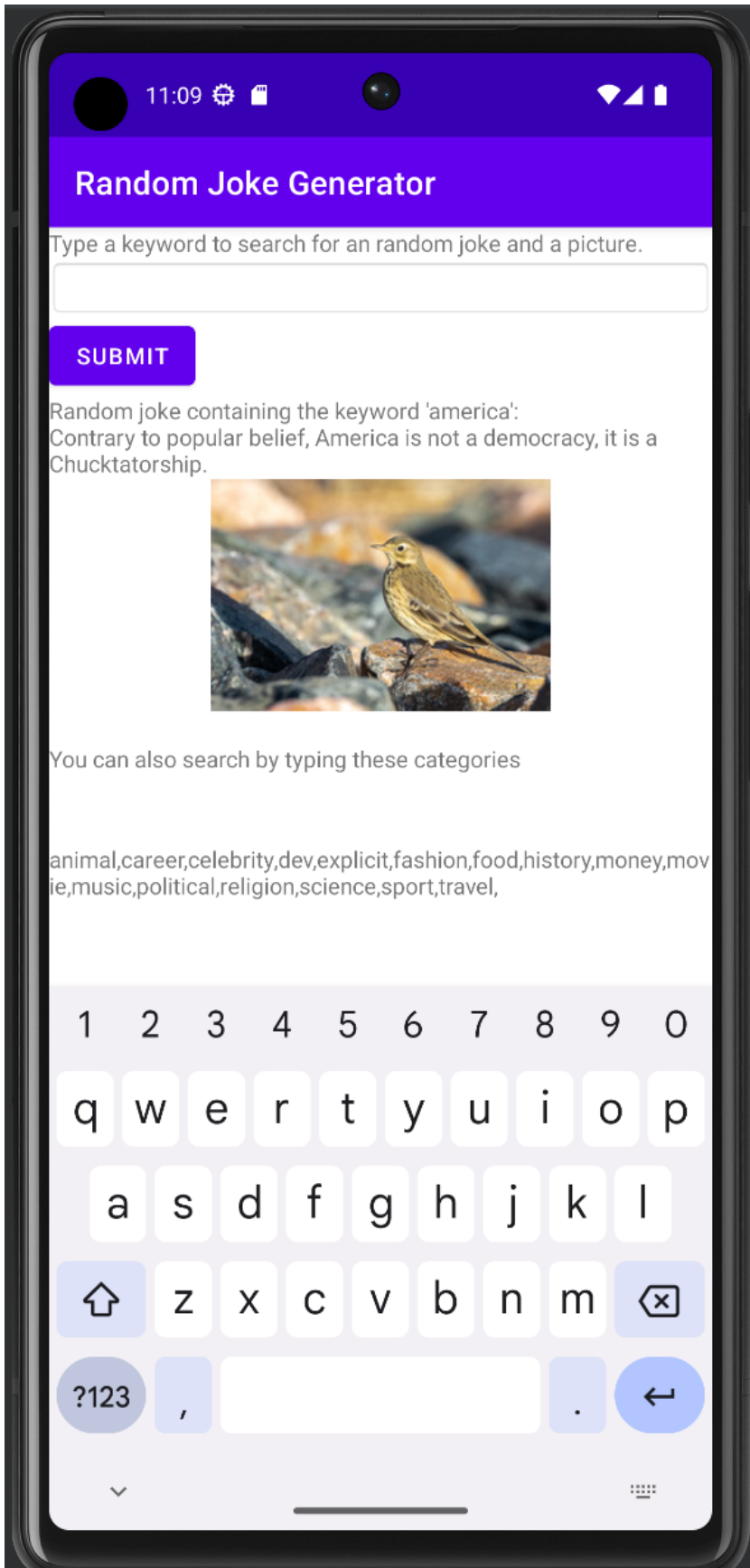
The screenshot shows a web browser window with the address bar containing the URL: `ipraharmacmu-fictional-umbrella-9p69p66969v3p79-8080.preview.app.github.dev/getAnInterestingPicture?searchWord=cow`. Below the address bar, there are three tabs labeled "Personal", "Study", and "CMU". The main content area displays a JSON object: `{"pictureURL":"https://live.staticflickr.com/3638/3563353060_abbdb26b0f_m.jpg","categories":["animal,career,celebrity,dev,explicit,fashion,food,history,joke containing the keyword 'cow':\nWhen Chuck Norris was younger, he wore cowboy boots, had a red beard and could deliver a fatal roundhouse kick. Knowing this one could imply that Chuck Norris has always been awesome."]}`

### d. Receives and parses an XML or JSON formatted reply from the web service

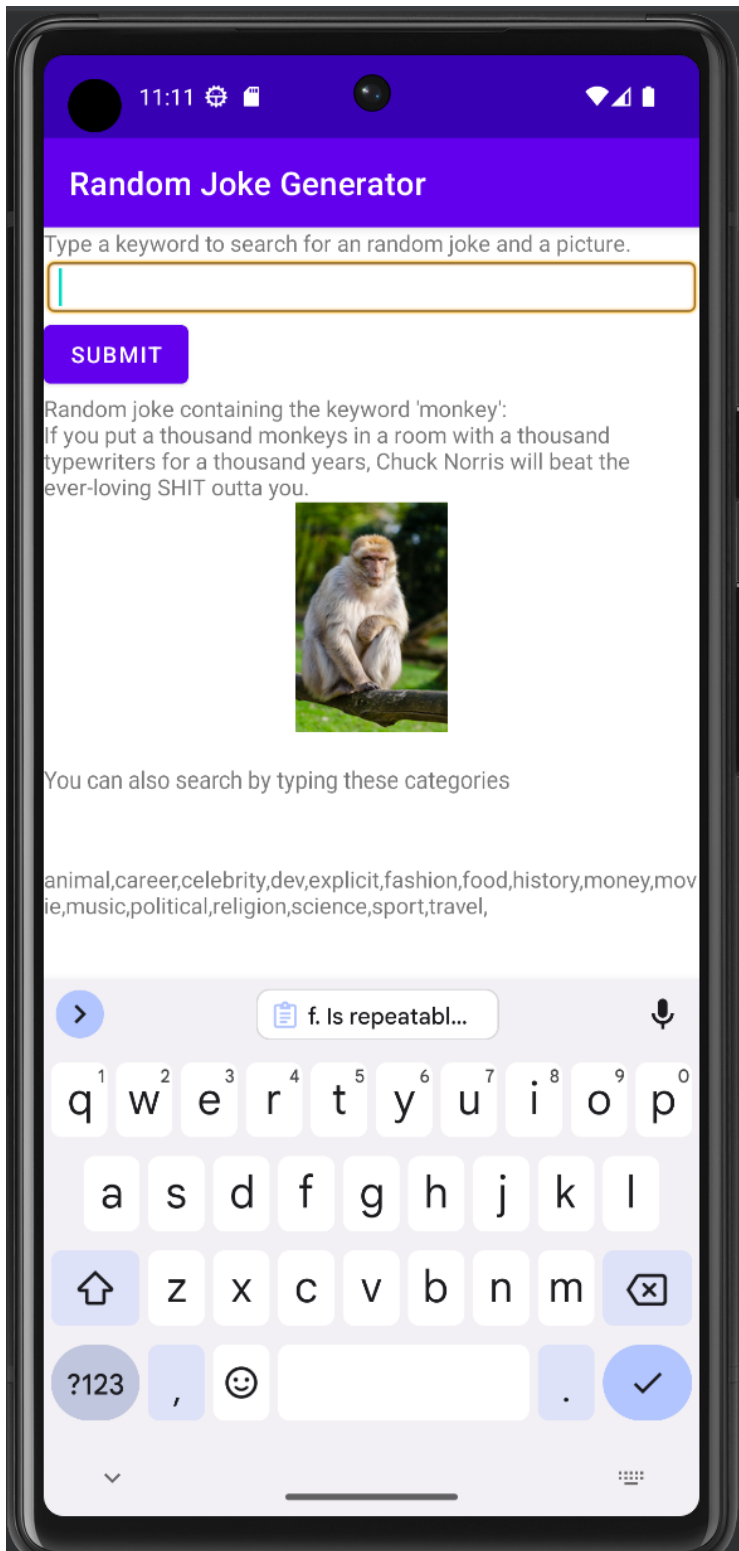
An example of the JSON reply is:

```
{"pictureURL":"https://live.staticflickr.com/1659/23895481293_6d5014d69e_m.jpg","categories":["animal,career,celebrity,dev,explicit,fashion,food,history,money,movie,music,political,religion,science,sport,travel,"],"joke":"Random joke containing the keyword 'andy':\nChuck Norris declined an invitation to compete in the World Pepper and Chilli eating contest, saying he isn't in the mood for overindulging in candy."}
```

e. Displays new information to the user



f. Is repeatable (i.e. the user can repeatedly reuse the application without restarting it.)



## 2. Implement a web application, deployed to Heroku

Codespace url - <https://ipraharacmu-fictional-umbrella-9p69p66969v3p79-8080.preview.app.github.dev/>

Project repo - <https://github.com/ipraharacmu/Project4Task2Codespace>

Profile - ipraharacmu

### a. Using an HttpServlet to implement a simple (can be a single path) API

In my web app project:

Model: InterestingPictureModel.java + MongoDBApp.java + ChuckNorrisJokeCategories.java

View: jokeType.jsp

Controller: JokePictureServlet.java

### b. Receives an HTTP request from the native Android application

JokePictureServlet.java receives the HTTP GET request with the argument "searchWord". It passes this search string on to the model.

### c. Executes business logic appropriate to your application

JokePictureServlet.java makes an HTTP request to:

<http://api.flickr.com/services/rest/?method=flickr.photos.search>.

<https://api.chucknorris.io/jokes/categories>

<https://api.chucknorris.io/jokes/search?query=> " + keyword

It then parses the JSON response and extracts the parts it needs to respond to the Android application.

### d. Replies to the Android application with an XML or JSON formatted response.

My JSON reply is:

```
{"pictureURL":"https://live.staticflickr.com/1659/23895481293_6d5014d69e_m.jpg","categories":"animal,career,celebrity,dev,explicit,fashion,food,history,money,movie,music,political,religion,science,sport,travel","joke":"Random joke containing the keyword 'andy':\nChuck Norris declined an invitation to compete in the World Pepper and Chilli eating contest, saying he isn't in the mood for overindulging in candy."}
```

d. Dashboard

Available at <https://ipraharmacmu-fictional-umbrella-9p69p66969v3p79-8080.preview.app.github.dev/getDashboard>

ipraharmacmu-fictional-umbrella-9p69p66969v3p79-8080.preview.app.github.dev/getDashboard

Personal

Study

CMU

Dashboard

Top 10 search terms: monkey, cat, cow, america

Number of terms searched: 4

Average search latency: 1500ms

Log table

Request_timestamp	api_pic_status	api_joke	api_endpoint	api_joke_status	api_timestamp	Request_searchWord	api_pic	Request_endpoint	api_categories
Mon Apr 10 03:53:41 UTC 2023	success	Random joke containing the keyword 'cat': Chuck Norris once spent 3 days and 5 nights on a lavish Las Vegas vacation package.	https://api.flickr.com & https://api.chucknorris.io/jokes/	success	Mon Apr 10 03:53:43 UTC 2023	cat	https://live.staticflickr.com/1261/5110834170_0797f39278_m.jpg	/getAnInterestingPicture	animal,career,celebrity,dev,explicit,fashion,food,history,money,movie,music,political,religion,z
Mon Apr 10 03:53:54 UTC 2023	success	Random joke containing the keyword 'monkey': Chuck Norris can inseminate millions of women, just by spunking his monkey!	https://api.flickr.com & https://api.chucknorris.io/jokes/	success	Mon Apr 10 03:53:56 UTC 2023	monkey	https://live.staticflickr.com/1453/26691814071_7d46c68bdf_m.jpg	/getAnInterestingPicture	animal,career,celebrity,dev,explicit,fashion,food,history,money,movie,music,political,religion,z
Mon Apr 10 03:54:01 UTC 2023	success	Random joke containing the keyword 'america': For the first time in 10 years, Chuck Norris is taking a day off. There will be no amazing feats today that can out-do	https://api.flickr.com & https://api.chucknorris.io/jokes/	success	Mon Apr 10 03:54:02 UTC 2023	america	https://live.staticflickr.com/2617/4119033894_bba5868895_m.jpg	/getAnInterestingPicture	animal,career,celebrity,dev,explicit,fashion,food,history,money,movie,music,political,religion,z