Now, for the coding exercise...

Please write

* a GraphQL API that takes a chat message string in GraphQL query format as input, and returns a JSON object containing information about its contents as described below.

Your service should parse the following data from the input:

1. **mentions** - A way to mention a user. Always starts with an '@' and ends when hitting a non-word character. (<https://confluence.atlassian.com/hipchatdc3/get-teammates-attention-966656092.html>)

2. **Emoticons** - For this exercise, you only need to consider 'custom' emoticons which are alphanumeric strings, no longer than 15 characters, contained in parenthesis. You can assume that anything matching this format is an emoticon. (<https://confluence.atlassian.com/hipchatdc3/fun-with-emoticons-966656104.html>)

3. **Links** - Any URLs contained in the message, along with the page's title.

### GraphQL API Requirements

The response should be a JSON object containing arrays of all matches parsed from the input string.

For example, calling your function with the following inputs should result in the corresponding return values.

**Input:**

{

records(message: "@chris you around?") {

mentions

}

}

**Return:**

{

"mentions": [

"chris"

]

}

**Input:**

{

records(message: "Good morning! (megusta) (coffee)") {

emoticons

}

}

**Return:**

{

"emoticons": [

"megusta",

"coffee"

]

}

**Input:**

{

records(message: "Olympics are starting soon; http://www.nbcolympics.com") {

mentions, links

}

}

**Return:**

{

"links": [

{

"url": "[http://www.nbcolympics.com](http://www.nbcolympics.com/)",

"title": "2016 Rio Olympic Games | NBC Olympics"

}

],

"mentions": []

}

**Input:**

{

records(message: "@bob @john (success) such a cool feature;<https://twitter.com/jdorfman/status/430511497475670016>") {

mentions, emoticons, links

}

}

**Return:**

{

"mentions": [

"bob",

"john"

],

"emoticons": [

"success"

],

"links": [

{

"url": "<https://twitter.com/jdorfman/status/430511497475670016>",

"title": "Justin Dorfman on Twitter: &quot;nice @littlebigdetail from @HipChat (shows hex colors when pasted in chat).<http://t.co/7cI6Gjy5pq&quot>;"

}

]

}

Good luck!