

## CS496 Assignment 3 Part 2

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### 1. URL structure

For this part, I used JSON, GET, POST, PUT and DELETE method to access my webapp. Since my webapp is an online memo website, users can create their memos and leave their comments on the memo. The primary usage of API is Display all memos, display all comments from an exact memo, create a new memo with/without comments, add comment to a memo and delete a memo. I tested all commands in the Google Cloud Shell (On the Google Cloud Platform website) and works fine.

**`https://jiawei-liu-cs496-assign3.appspot.com/memos`**

This url is the primary url to look all memos information, and this url can use in the browser.

**`curl https://jiawei-liu-cs496-assign3.appspot.com/memos`**

This command use GET to display all memo information, just like above url, but this command used in terminal.

**`curl https://jiawei-liu-cs496-assign3.appspot.com/memos/<PUT ID HERE>/comments`**

This command use GET to display all comments in an exact memo, after run above command, there are a ID number of each memo. So, use ID in the command line.

**`curl -H "Content-type: application/json" --data '{"title":"Memo 11"}' https://jiawei-liu-cs496-assign3.appspot.com/memos`**

This command can create new memo by POST. The “title” is the memo title, you can change it.

**`curl -H "Content-Type: application/json" -X POST -d '{"title":"memo 22", "description":"this is memo test 2", "improtance":"3", "comments":{"comment1":{"author":"Jiawei", "body":"This memo is useful"}, "comment2":{"author":"Jack", "body":"I hate this memo"}}}' https://jiawei-liu-cs496-assign3.appspot.com/memos`**

This command use POST to create a new memo with a comment. Title, author, and description can change to anything.

**`curl -H "Content-type: application/json" -X PUT -d '{"comments":{"comment1":{"author":"Jiawei", "body":"i am first to comment"}, "comment2":{"author":"jack", "body":"I am not the first one"}}}' https://jiawei-liu-cs496-assign3.appspot.com/memos/<PUT ID HERE>/comments`**

This command use PUT to add more comments into a memo. ID is the memo that you want to add comments. Author and comment can change to anything.

**curl -X DELETE https://jiawei-liu-cs496-assign3.appspot.com/memos/<PUT ID HERE>**

This command use DELETE to delete a memo, just include the ID of memo, you can delete it.

## **2. RESTful**

In this assignment, I met Client-Server Separation, Stateless, Caching and Uniform Interface. My sever is on the cloud and client is local browser, so they are separate. Client will maintain all need state information and sent every request. Resources are identified in requests.

I may not meet Layered System. Because I didn't support load balancing when I design me webapp. But GAE may balance automatically for my webapp.

## **3. Change of schema**

I changed the user part in my assignment. I was try to let user view their own memos, but I feel let different user review all memos and leave comment might bring better experience. So I changed the user part of schema.

## **4. API differently**

If I can continue to develop this API, I may add more function such create user account and sort the comments. I am satisfied with the basic structure of API. If I have more time, I will add more function to make it better.

## **5. Testing**

I include a curlTEST.txt file in my submission. This file includes all designed commands and test case result. Please check this file.