

# Using ARC

swppfall2019 hw3

# ARC

- ARC (Advanced REST Client) is an app for testing HTTP APIs
- You can see how your API server responds with your custom requests.
  
- Install from chrome web store
  - <https://install.advancedrestclient.com>

History

Saved

Projects

APIs

Environment: Default

ALL HISTORY

REFRESH

Send a request and recall it from  
here

Once you made a request it will appear in this  
place.

&lt; http:// × +

Method

GET

Request URL

http://

SEND

Parameters ^

Headers

Authorization

Actions



&lt;&gt;



ADD HEADER

# 1. Sending a GET request

- Write url of your GET API
- Select 'GET' among the method options
- Click the 'SEND' button to send request
- Response will be shown below

History

Saved

Projects

APIs

Environment: Default

ALL HISTORY

REFRESH

Today

GET

http://localhost:8000/api/todo/  
오후 1:44:31



http://localhost:8000/api/... ×



Method

Request URI

GET

http://localhost:8000/api/todo

SEND

Parameters ^

Headers

Authorization

Actions



ADD HEADER

200 OK

3.20 ms

DETAILS ▾



```
[Array[1]]
  -0: {
    "id": 1,
    "title": "aa",
    "content": "aaa"
  }
],
```

## 2. Sending a POST request with CSRF token

- To send a POST, PUT or DELETE requests, you should append the CSRF token for security
- You should first get the CSRF token from Django
- In the skeleton code of homework 3, `/api/token` is provided for getting the CSRF token

## 2-1. Getting the CSRF token

- Send a GET request to `/api/token`
  - Response code would be "204 No Content"
- Open "DETAILS" tab and select "Response headers" tab
- Among the headers, you can find  
"Set-Cookie: csrftoken=~~~~~"

History

Saved

Projects

APIs

Environment: Default

ALL HISTORY

REFRESH

Today

GET

http://localhost:8000/api/token  
오후 1:47:57

GET

http://localhost:8000/api/todo/  
오후 1:44:31



http://localhost:8000/api/... ×



Method

Request URI

GET

http://localhost:8000/api/token

SEND

Parameters ^

Headers

Authorization

Actions



ADD HEADER

204 No Content

13.70 ms

DETAILS ▾



Advanced REST client

File Edit View Window Request Help

History Saved Projects APIs

Environment: Default

ALL HISTORY REFRESH

Today

- GET http://localhost:8000/api/token  
오후 1:47:57
- GET http://localhost:8000/api/todo/  
오후 1:44:31

Method Request URL

GET http://localhost:8000/api/token

SEND

Parameters

Headers Authorization Actions

204 No Content 13.70 ms

DETAILS

GET http://localhost:8000/api/token

Response headers 7 Request headers 1 Redirects Timings

Date: Mon, 07 Oct 2019 04:47:57 GMT  
Server: WSGIServer/0.2 CPython/3.6.8  
Content-Type: text/html; charset=utf-8  
Vary: Cookie  
X-Frame-Options: SAMEORIGIN  
Content-Length: 0  
Set-Cookie: csrftoken=dJrH31pdPZ0pXUuI3AA5f1ZNNZ65YR19iQpx4d68jrHocY6rLyUjLQ3ixdo8djh0; expires=Mon, 05 Oct 2020 04:47:57 GMT; Max-Age=31449600; Path=/; SameSite=Lax

This is your CSRF token.  
Copy this.

## 2-2. Send a POST request with the CSRF token

- Copy the token and add the following headers in the “Headers” tab.

```
X-CSRFToken: [your csrf token]
```

```
Content-Type: application/json
```

- Write your POST data in the “Body” tab in JSON format.

```
{"title": "my title", "content": "my content"}
```

History

Saved

Projects

APIs

ALL HISTORY

REFRESH

Today

POST

http://localhost:8000/api/todo/  
오후 2:00:21

GET

http://localhost:8000/api/todo/  
오후 2:00:10

POST

http://localhost:8000/api/todo  
오후 1:59:20

GET

http://localhost:8000/api/token  
오후 1:47:57

Environment: Default



http://localhost:8000/api/... ×



Method

POST

Request URI

http://localhost:8000/api/todo/

SEND

Parameters

Headers

Body

Authorization

Actions



X-CSRFToken: dJrH31pdPZ0pXUuI3AA5f1ZNNZ65YR19iQpx4d68jrHocY6rLyUjLQ3ixdo8djh0  
Content-Type: application/json

201 Created 9.60 ms

DETAILS

POST http://localhost:8000/api/todo/

Response headers

Request headers

Redirects

Timings

# Alternatively, you can send your headers like this

Parameters ^

Headers

Body

Authorization

Actions



Header name



X-CSRFToken

Header value

I5f7Acphq6ZnmQ2vKudzrbryuRTTgwwZjNJciul8Zqq4xjHYHZytcaiPvKqGvZXT



Header name



Content-Type

Header value

application/json



ADD HEADER

History

Saved

Projects

APIs

Environment: Default

ALL HISTORY

REFRESH

Today

POST

http://localhost:8000/api/todo/  
오후 2:00:21

GET

http://localhost:8000/api/todo/  
오후 2:00:10

POST

http://localhost:8000/api/todo  
오후 1:59:20

GET

http://localhost:8000/api/token  
오후 1:47:57



http://localhost:8000/api/... ×



Method

Request URL

POST

http://localhost:8000/api/todo/

SEND

Parameters ^

Headers

Body

Authorization

Actions



Body content type

application/json

FORMAT JSON

MINIFY JSON

```
{"title": "my title", "content": "my content"}
```

201 Created 9.60 ms

DETAILS ^

### 3. Sending a POST request with session id

- After you sign in, you will get a session id
- To verify that you are signed in, you have to contain session id in your header

The screenshot shows a REST client interface. At the top, the method is set to POST and the request URL is `http://localhost:8000/api/signin`. A blue 'SEND' button is visible. Below the URL bar, there are tabs for 'Parameters', 'Headers', 'Body', 'Authorization', and 'Actions'. The 'Headers' tab is selected, showing two headers: 'X-CSRFToken' with a value and 'Content-Type' set to 'application/json'. Below the headers, a status bar indicates '204 No Content' and a response time of '76.70 ms'. The bottom section shows the 'Response headers' tab with a red '8' icon. The response headers include 'Date', 'Server', 'Content-Type', 'X-Frame-Options', 'Vary', 'Content-Length', 'Set-Cookie', and 'Set-Cookie:'. The 'Set-Cookie' header contains the session ID, which is highlighted with a red box. A callout box points to this session ID with the text 'This is your session id. Copy this.'

Method: POST, Request URL: `http://localhost:8000/api/signin`

Parameters: ^

Headers:

Header name	Header value
<input checked="" type="checkbox"/> X-CSRFToken	15f7Acphq6ZnmQ2vKudzrbryuRTTgwwZjNJciul8Zqq4xjHYHZytcaiPvKqGvZXT
<input checked="" type="checkbox"/> Content-Type	application/json

+ ADD HEADER

204 No Content 76.70 ms

POST `http://localhost:8000/api/signin`

Response headers 8

Date: Wed, 16 Oct 2019 08:18:40 GMT  
Server: WSGIServer/0.2 CPython/3.6.8  
Content-Type: text/html; charset=utf-8  
X-Frame-Options: SAMEORIGIN  
Vary: Cookie  
Content-Length: 0  
Set-Cookie: `csrftoken=15f7Acphq6ZnmQ2vKudzrbryuRTTgwwZjNJciul8Zqq4xjHYHZytcaiPvKqGvZXT; expires=Wed, 14 Oct 2020 08:18:40 GMT; Max-Age=31449600; Path=/; SameSite=Lax`  
Set-Cookie: `sessionid=ay1llhvu5ngqd62bhd25q9lvbvt7poyd; expires=Wed, 30 Oct 2019 08:18:40 GMT; HttpOnly; Max-Age=1209600; Path=/; SameSite=Lax`

This is your session id. Copy this.

# Add session id to your header and send request

Method GET Request URL http://localhost:8000/api/article SEND

Parameters ^

Headers	Authorization	Actions
<div><div>Header name</div><div><input checked="" type="checkbox"/> Cookie</div></div>	<div><div>Header value</div><div>sessionid=ay1llhvu5ngqd62bhd25q9lvbrt7poyd;</div></div>	<div><div>?</div><div>⊖</div></div>
<div><div>Header name</div><div><input type="checkbox"/> X-CSRFToken</div></div>	<div><div>Parameter value</div><div>I5f7Acphq6ZnmQ2vKudzrbryuRTTgwwZjNJciul8Zqq4xjHYHZytcaiPvKqGvZXT</div></div>	<div><div>⊖</div></div>
<div><div>Header name</div><div><input type="checkbox"/> Content-Type</div></div>	<div><div>Parameter value</div><div>application/json</div></div>	<div><div>?</div><div>⊖</div></div>
<div><div>+</div> ADD HEADER</div>		

200 OK 12.30 ms DETAILS ^