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# **sdclib Documentation**

*Release 1.12.0*

**Ivan Martin Vedriel**

**Jan 14, 2022**



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## Contents

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<b>1</b>	<b>Highlights</b>	<b>3</b>
<b>2</b>	<b>Install</b>	<b>5</b>
<b>3</b>	<b>Sample</b>	<b>7</b>
<b>4</b>	<b>Run tests</b>	<b>9</b>
<b>5</b>	<b>Contributing</b>	<b>11</b>
<b>6</b>	<b>Authors</b>	<b>13</b>
6.1	Writing your First SDK . . . . .	13
6.2	Configuration . . . . .	16
6.3	Renderers . . . . .	18
6.4	Authentication . . . . .	20
6.5	Response . . . . .	23
6.6	License . . . . .	24
6.7	Release Notes . . . . .	25
	<b>Python Module Index</b>	<b>33</b>
	<b>Index</b>	<b>35</b>



Sdklib helps you to write you own client library which will consume a specific service.



# CHAPTER 1

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## Highlights

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- Python 2.7+ or 3.3+.
- Only http/https protocol is currently supported.
- BDD integration.





## CHAPTER 2

---

### Install

---

Install the `sdplib` package using `pip`:

```
pip install sdplib
```



Find my first SDK on github: <https://github.com/ivanprjcts/my-first-sdk>

```
from sdklib.http import HttpSdk

class FirstSdk(HttpSdk):
    """
    My First Sdk.
    """
    DEFAULT_HOST = "http://mockapi.sdklib.org"

    API_ITEMS_URL_PATH = "/items/"

    def create_item(self, name, description=None):
        """
        Create an item.

        :type name: str
        :type description: str
        :return: SdkResponse
        """
        params = parse_args(name=name, description=description)
        return self.post(self.API_ITEMS_URL_PATH, body_params=params)
```



## CHAPTER 4

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Run tests

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Running testing with coverage:

```
py.test --cov=sdclib tests/
```



## CHAPTER 5

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### Contributing

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1. Check for open issues or open a fresh issue to start a discussion around a feature idea or a bug.
2. Fork the repository on GitHub to start making your changes to the master branch (or branch off of it).
3. Write a test which shows that the bug was fixed or that the feature works as expected.
4. Send a pull request and bug the maintainer until it gets merged and published. Make sure to add yourself to Authors.





- Ivan Martin Vedriel - @ivanprjcts
- Rubén González Alonso - @rgonalo

## 6.1 Writing your First SDK

### 6.1.1 Introduction

This tutorial will cover creating a simple SDK for managing a REST-ful API.

**Note:** The code for this tutorial is available in the [ivanprjcts/my-first-sdk](#) repository on GitHub.

### 6.1.2 Setting up a new environment

Before we do anything else we'll create a new virtual environment, using `virtualenv`. This will make sure our package configuration is kept nicely isolated from any other projects we're working on.

```
virtualenv env
source env/bin/activate
```

Now that we're inside a `virtualenv` environment, we can install our package requirements.

```
pip install sdklib
```

**Note:** To exit the `virtualenv` environment at any time, just type `deactivate`.

### 6.1.3 Getting started

Okay, we're ready to get coding. To get started, let's create a new project to work with.

```
cd ~
mkdir my-first-sdk
cd my-first-sdk
```

Once that's done we can create project structure that we'll use to create a simple Web API Client SDK.

```
mkdir first_sdk tests
touch README.md first_sdk/__init__.py first_sdk/first_sdk.py tests/__init__.py tests/
↪test_first_sdk.py
tree
.
```

```
├── README.md
├── first_sdk
│   ├── __init__.py
│   └── first_sdk.py
└── tests
    ├── __init__.py
    └── test_first_sdk.py
```

## 6.1.4 My First SDK

We'll need to edit our *first\_sdk/first\_sdk.py* file:

```
from sdplib.http import HttpSdk
from sdplib.util.parser import safe_add_end_slash, parse_args

class FirstSdk(HttpSdk):
    """
    My First Sdk.
    """
    DEFAULT_HOST = "http://mockapi.sdplib.org"

    API_ITEMS_URL_PATH = "/items/"

    def create_item(self, name, description=None):
        """
        Create an item.
        :param name: str
        :param description: str (optional)
        :return: SdkResponse
        """
        params = parse_args(name=name, description=description)
        return self.post(self.API_ITEMS_URL_PATH, body_params=params)

    def get_items(self, item_id=None):
        """
        Retrieve all items if 'item_id' is None. Otherwise, get specified item by
        ↪'item_id'.
        :param item_id: str (optional)
        :return: SdkResponse
        """
        return self.get(self.API_ITEMS_URL_PATH + safe_add_end_slash(item_id))

    def update_item(self, item_id, name, description=None):
        """
```

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```

    Update an item.
    :param item_id: str
    :param name: str
    :param description: str (optional)
    :return: SdkResponse
    """
    params = parse_args(name=name, description=description)
    return self.put(self.API_ITEMS_URL_PATH + item_id + '/', body_params=params)

def delete_item(self, item_id):
    """
    Remove an item.
    :param item_id: str
    :return: SdkResponse
    """
    return self.delete(self.API_ITEMS_URL_PATH + item_id + '/')

```

Okay, we're ready to test.

## 6.1.5 Testing my First SDK

Let's edit our `tests/test_first_sdk.py` file:

```

import unittest

from first_sdk.first_sdk import FirstSdk

class TestFirstSdk(unittest.TestCase):

    @classmethod
    def setUpClass(cls):
        cls.api = FirstSdk()

    @classmethod
    def tearDownClass(cls):
        pass

    def test_crud_items(self):
        """
        Test the creation, reading, update and deletion of an item.
        """
        response = self.api.create_item("ItemName", "Some description")
        self.assertEqual(response.status, 201)

        item_id = response.data["pk"]
        self.assertEqual("ItemName", response.data["name"])
        self.assertEqual("Some description", response.data["description"])

        response = self.api.get_items()
        self.assertEqual(response.status, 200)
        self.assertIn("results", response.data)
        self.assertTrue(isinstance(response.data["results"], list))

        response = self.api.get_items(item_id)

```

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```

self.assertEqual(response.status, 200)
self.assertEqual("ItemName", response.data["name"])
self.assertEqual("Some description", response.data["description"])

response = self.api.update_item(item_id, "New name")
self.assertEqual(response.status, 200)
self.assertEqual("New name", response.data["name"])
self.assertEqual("Some description", response.data["description"])

response = self.api.delete_item(item_id)
self.assertEqual(response.status, 204)

```

## 6.2 Configuration

### 6.2.1 Secure HTTP

By default, ssl certificates are not validated.

### 6.2.2 Default Configuration

Parameter	Default value
DEFAULT_HOST	http://127.0.0.1:80
DEFAULT_PROXY	None
DEFAULT_RENDERER	JSONRenderer()

#### DEFAULT\_HOST

Value: “http://127.0.0.1:80”

A string that will be used as host default value.

- It can be also modified by using `set_default_host()` class method.

#### DEFAULT\_PROXY

Value: None (no proxy)

A string that will be used as proxy default value.

- It can be also modified by using `set_default_proxy()` class method.

#### DEFAULT\_RENDERER

Value: JSONRenderer() object

A renderer object that will be used to build the body for any request.

For more in depth information, see *Renderers*.

### 6.2.3 URLs

#### host

Default: *DEFAULT\_HOST*

A string that will be automatically included at the beginning of the url generated for doing each http request.

#### prefix\_url\_path

Default: "" (Empty string)

A string that will be automatically prepended to all urls.

#### url\_path\_params

Default: {} (Empty dictionary)

A dictionary mapping strings to string format that take a model object and return the generated URL. It works like string format with dictionary:

```
"/path/to/{project_id}/{lang}".format(**{"project_id": 1, "lang": "es"})
```

#### url\_path\_format

Default: None

A string that will be automatically included (suffixed) to all urls. For example:

```
.json or .xml
```

### 6.2.4 authentication\_instances

Default: () (Empty tuple)

List (or tuple) of authentication objects that will be used for building the request.

For more in depth information, see *Authentication*.

### 6.2.5 response\_class

Default: HttpResponse

For more in depth information, see *Response*.

### 6.2.6 ssl\_verify

Default: None (undefined), validate certs (True)

Define if certificates are required for the SSL connection. They will be validated, and if validation fails, the connection will also fail.

Values: (bool) *True* or *False*

This value could also be defined using environment variable `SDKLIB_SSL_VERIFY`

```
export SDKLIB_SSL_VERIFY=False
```

## 6.3 Renderers

Renderers are the managers of request body encoding and the content-type header.

Renderer name	Content-type	Encoding
form	application/x-www-form-urlencoded	param1=value1&param2=value2
multipart	multipart/form-data	Content-Disposition: form-data; name="param1"nvalue1
plain	text/plain; charset=utf-8	param1=value1\nparam2=value2
json	application/json	{"param1": "value1", "param2": "value2"}

### 6.3.1 JSONRenderer

Build the body for a *application/json* request.

### 6.3.2 FormRenderer

Build the body for a *application/x-www-form-urlencoded* request.

### 6.3.3 MultiPartRenderer

Build the body for a *multipart/form-data* request.

### 6.3.4 PlainTextRenderer

Build the body for a *text/plain* request.

### 6.3.5 Renderers module

```
class sdklib.http.renderers.BaseRenderer
```

```
    Bases: object
```

```
    DEFAULT_CONTENT_TYPE = ''
```

```
    encode_params (data=None, **kwargs)
```

```
        Build the body for a request.
```

```
class sdklib.http.renderers.CustomRenderer (content_type)
```

```
    Bases: sdklib.http.renderers.BaseRenderer
```

```
    encode_params (data=None, **kwargs)
```

```
        Build the body for a custom request.
```

```

class sdklib.http.renderers.FormRenderer (collection_format='multi',          out-
                                         put_str='javascript', sort=False)
    Bases: sdklib.http.renderers.BaseRenderer
    COLLECTION_SEPARATORS = {'csv': ',', 'pipes': '|', 'ssv': ' ', 'tsv': '\t'}
    DEFAULT_CONTENT_TYPE = 'application/x-www-form-urlencoded'
    VALID_COLLECTION_FORMATS = ['multi', 'csv', 'ssv', 'tsv', 'pipes', 'encoded']
    collection_format

    encode_params (data=None, **kwargs)
        Encode parameters in a piece of data. Will successfully encode parameters when passed as a dict or a list
        of 2-tuples. Order is retained if data is a list of 2-tuples but arbitrary if parameters are supplied as a dict.

class sdklib.http.renderers.JSONRenderer
    Bases: sdklib.http.renderers.BaseRenderer
    DEFAULT_CONTENT_TYPE = 'application/json'
    encode_params (data=None, **kwargs)
        Build the body for a application/json request.

class sdklib.http.renderers.MultiPartRenderer (boundary='-----
                                                This_Is_tHe_bouNdaRY',          out-
                                                put_str='javascript')
    Bases: sdklib.http.renderers.BaseRenderer
    encode_params (data=None, files=None, **kwargs)
        Build the body for a multipart/form-data request. Will successfully encode files when passed as a dict or
        a list of tuples. Order is retained if data is a list of tuples but arbitrary if parameters are supplied as a dict.
        The tuples may be string (filepath), 2-tuples (filename, fileobj), 3-tuples (filename, fileobj, contenttype) or
        4-tuples (filename, fileobj, contenttype, custom_headers).

class sdklib.http.renderers.PlainTextRenderer (charset=None,          collec-
                                                tion_format='multi',          out-
                                                put_str='javascript')
    Bases: sdklib.http.renderers.BaseRenderer
    COLLECTION_SEPARATORS = {'csv': ',', 'pipes': '|', 'ssv': ' ', 'tsv': '\t'}
    VALID_COLLECTION_FORMATS = ['multi', 'csv', 'ssv', 'tsv', 'pipes', 'plain']
    collection_format

    encode_params (data=None, **kwargs)
        Build the body for a text/plain request. Will successfully encode parameters when passed as a dict or a list
        of 2-tuples. Order is retained if data is a list of 2-tuples but arbitrary if parameters are supplied as a dict.

    get_content_type (charset=None)

class sdklib.http.renderers.XMLRenderer
    Bases: sdklib.http.renderers.BaseRenderer
    DEFAULT_CONTENT_TYPE = 'application/xml'
    encode_params (data=None, **kwargs)
        Build the body for a application/xml request.

sdklib.http.renderers.get_primitive_as_string (strings_dict, value)
sdklib.http.renderers.get_renderer (name=None, mime_type=None)

```

`sdklib.http.renderers.guess_file_name_stream_type_header` (*args*)

Guess filename, file stream, file type, file header from args.

**Parameters** *args* – may be string (filepath), 2-tuples (filename, fileobj), 3-tuples (filename, fileobj, contenttype) or 4-tuples (filename, fileobj, contenttype, custom\_headers). :return: filename, file stream, file type, file header

`sdklib.http.renderers.to_string` (*value*, *lang='javascript'*)

`sdklib.http.renderers.url_encode` (*params*, *sort=False*)

## 6.4 Authentication

### 6.4.1 Session authentication

Session authentication is mostly used for AJAX clients that are running in the same session context as a website.

A client usually authenticates with its credentials and receives a `session_id` (which can be stored in a cookie) and attaches this to every subsequent outgoing request. So this could be considered a “token” as it is the equivalent of a set of credentials. It is just an identifier and the server does everything else.

HttpSdk class implements a mechanism to save automatically cookies embedded into *SET-COOKIE* header in each response.

If a cookie object is stored locally, then every request will contain a *COOKIE* header with this value.

#### Session module

**class** `sdklib.http.session.Cookie` (*headers=None*)

Bases: `object`

Wrapper of python Cookie class.

See <https://docs.python.org/2/library/cookie.html>

**as\_cookie\_header\_value** ()

**get** (*key*, *default=None*)

**getcookie** ()

**is\_empty** ()

**items** ()

**load\_from\_headers** (*headers*)

**update** (*cookie*)

#### Login method

Sdklib provides an abstract method for login purposes.

- `.login(self, **kargs)`

Do a *POST* request to *LOGIN\_URL\_PATH* using parameters passed to method.



## CRSR Token

Sometimes, you'll need to make sure you include a valid CSRF token for any "unsafe" HTTP method calls, such as PUT, PATCH, POST or DELETE requests.

### 6.4.2 Basic authentication

HTTP Basic authentication (BA) implementation is the simplest technique for enforcing access controls to web resources because it doesn't require cookies, session identifiers, or login pages; rather, HTTP Basic authentication uses standard fields in the HTTP header, obviating the need for handshakes.

#### The Authorization header

The Authorization field is constructed as follows:

1. The username and password are combined with a single colon.
2. The resulting string is encoded using the RFC2045-MIME variant of Base64, except not limited to 76 char/line.
3. The authorization method and a space i.e. "Basic " is then put before the encoded string.

For example,

```
Authorization: Basic QWxhZGRpbjppPcGVuU2VzYW11
```

### 6.4.3 11Paths authentication

All requests must be signed. The signing process is a simplified version of the 2-legged Oauth protocol.

Every HTTP request to the API must be accompanied by two authentication headers: Authorization and Date.

#### The Authorization header

The Authorization header must have the following format:

```
11PATHS requestId requestSignature
```

- **requestId** is an alphanumeric identifier obtained when registering a new API.
- **11PATHS** is a constant that determines the Authentication method.
- **applicationId** is an alphanumeric identifier obtained when registering a new application.
- **requestSignature** is a signature derived from the url, parameters, custom headers and date of the current request, all hashed using a secret that is also obtained with the applicationId when registering the application.

The request signature is a base64 encoded and HMAC-SHA1 signed string. The string must be created following this process.

1. Start with an empty string.
2. Append the uppercase method name. Currently, only the values GET, POST, PUT, DELETE are supported.
3. Append a line separator, "\n" (unicode point U+000A).

4. Append a string with the current date in the exact format yyyy-MM-dd HH:mm:ss. Everything in the format should be self explanatory, noting that everything is numeric and should be zero-padded if needed so that all numbers have two digits except the year, having four. This value must be kept to be used in the Date header. The signature checking process will fail if both don't match.
5. Append a line separator, "" (unicode point U+000A).
6. Serialize all headers specific to this application (not every HTTP header in the request). These headers all have their names starting with X-11paths-
  - a. Convert all header names to lower case.
  - b. Order the headers by header name in alphabetical ascending order.
  - c. For every header value, convert multiline headers into single line by replacing newline characters "" by single spaces "".
  - d. Create an empty string. Then, for every header after the order and transformations above, add to the newly created string the header name followed by a colon ":" and followed by the header value. Each name:value should be separated from the next by a single space "".
  - e. Trim the string to make sure it doesn't contain any spacing characters at the beginning or end.
7. Append a line separator, "" (unicode point U+000A).
8. Append the url encoded query string consisting on the path (starting with the first forward slash) and the query parameters. The query string must not contain the host name or port, and must not contain any spacing characters prefixing or suffixing it.
9. Only for POST or PUT requests, attach a line separator, "" (Unicode Point U+000A).
10. Only for POST or PUT requests, serialize the request parameters as follows, the name of the parameter and its value, the UTF-8 representation of its URL coding.
  - a. Order the parameters by parameter name in ascending alphabetical order and then by parameter value.
  - b. Create an empty chain. Then, for each parameter after ordering, add to the newly created chain the parameter name followed by an equal sign "=" and the value of the parameter. Each name=value should be separated from the next by an ampersand "&".
  - c. Trim the string to make sure it doesn't contain any spacing characters at the beginning or end.

Once the string has been created following the process described above, it must be signed using the HMAC-SHA1 algorithm and the secret that was obtained when registering the application. After signing, its raw binary data must be encoded in base64. The resulting string is the requestSignature to be added to Authorization header.

### The X-11Paths-Date header

The **X-11Paths-Date** header contains the value of the current UTC date and must have the following format:

yyyy-MM-dd HH:mm:ss
---------------------

- **yyyy** is the year.
- **MM** is the number of month.
- **dd** is the number of day.
- **HH** is the hour in 24h format.
- **mm** is the minute within the hour and **ss** is the second within the minute.

All values must be zero-padded so that they are all 2 digit values except for the year which is 4.

It is very important that the value and format of this header is the exact same used in the process of creating the **requestSignature** for the authorization header as explained above.

Note you can still use the standard HTTP Header **Date** in whichever format you want, such as RFC 1123. Just make sure to not confuse both and always use the value you use in **X-11Paths-Date** in the signature process. The API will ignore the standard **Date** header.

## Authorization module

```
class sdplib.http.authorization.AbstractAuthentication
```

Bases: `object`

**apply\_authentication** (*context*)

```
class sdplib.http.authorization.BasicAuthentication (username, password)
```

Bases: `sdplib.http.authorization.AbstractAuthentication`

**apply\_authentication** (*context*)

```
class sdplib.http.authorization.X11PathsAuthentication (app_id, secret, utc=None)
```

Bases: `sdplib.http.authorization.AbstractAuthentication`

**apply\_authentication** (*context*)

```
sdplib.http.authorization.basic_authorization (username, password)
```

```
sdplib.http.authorization.x_11paths_authorization (app_id, secret, context, utc=None)
```

Calculate the authentication headers to be sent with a request to the API.

### Parameters

- **app\_id** –
- **secret** –

:param context :param utc: :return: array a map with the Authorization and Date headers needed to sign a Latch API request

## 6.5 Response

```
class sdplib.http.response.AbstractBaseHttpResponse (resp)
```

Bases: `object`

Wrapper of Urllib3 HTTPResponse class needed to implement any HttpSdk response class.

See [Urllib3](#).

**cookie**

**headers**

Returns a dictionary of the response headers.

**urllib3\_response = None**

```
class sdplib.http.response.Api11PathsResponse (resp)
```

Bases: `sdplib.http.response.AbstractBaseHttpResponse`, `sdplib.http.response.JsonResponseMixin`

This class models a response from any of the endpoints in most of 11Paths APIs.

It consists of a “data” and an “error” elements. Although normally only one of them will be present, they are not mutually exclusive, since errors can be non fatal, and therefore a response could have valid information in the data field and at the same time inform of an error.

**data**

**Returns** data part of the API response into a dictionary

**error**

@return Error the error part of the API response, consisting of an error code and an error message

**class** `sdplib.http.response.Error` (*json\_data*)

Bases: `object`

**code**

**json**

**message**

**class** `sdplib.http.response.HttpResponse` (*resp*)

Bases: `sdplib.http.response.Response`, `sdplib.http.response.AbstractBaseHttpResponse`

Wrapper of Urllib3 HTTPResponse class compatible with AbstractBaseHttpResponse.

See `Urllib3`.

**reason**

**class** `sdplib.http.response.JsonResponseMixin`

Bases: `object`

**case\_insensitive\_dict**

**json**

**class** `sdplib.http.response.Response` (*headers=None, status=None, status\_text=None, http\_version=None, body=None*)

Bases: `sdplib.http.response.JsonResponseMixin`

**body**

**data**

**headers**

Returns a dictionary of the response headers.

**html**

Returns HTML response data.

**http\_version**

**raw**

Returns urllib3 response data.

**status**

**status\_text**

**xml**

## 6.6 License

## 6.6.1 Included projects

- [Urllib3 - View license.](#)
- [Xmldict - View license.](#)

Many thanks to the authors and contributors of those projects.

## 6.6.2 Sdklib License (BSD)

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## 6.7 Release Notes

### 6.7.1 Upgrading

To upgrade Sdklib to the latest version, use pip:

```
pip install -U sdklib
```

### 6.7.2 Sdklib 1.12.x series

#### Sdklib 1.12.0

- Support Python 3.10.

### 6.7.3 Sdklib 1.11.x series

#### Sdklib 1.11.2

- Fix `ssl_verify` behaviour for old versions of `urllib3`.

### **Sdklib 1.11.1**

- Fix 11paths authorization using body in python3.

### **Sdklib 1.11.0**

- Allow ssl\_verify config param.

## **6.7.4 Sdklib 1.10.x series**

### **Sdklib 1.10.5**

- Fix multipart boundary characters according to RFC ([https://www.w3.org/Protocols/rfc1341/7\\_2\\_Multipart.html](https://www.w3.org/Protocols/rfc1341/7_2_Multipart.html)).

### **Sdklib 1.10.3**

- New experimental feature: support socks proxy protocol.

### **Sdklib 1.10.2**

- Fix bug.

### **Sdklib 1.10.1**

- Improve getting text from lxml elements.

### **Sdklib 1.10.0**

- Fix bug setting cookies after receiving several “Set-Cookie” headers.
- Update urllib3 version.
- Remove experimental support to proxy socks protocol.

## **6.7.5 Sdklib 1.9.x series**

### **Sdklib 1.9.6**

- Support proxy socks protocol.

### **Sdklib 1.9.5**

- Fix installation.

### **Sdklib 1.9.4**

- Move ignore warnings function to shortcuts.

### Sdklib 1.9.3

- Allow to ignore warnings.
- Fix bug in getparent htmlElem method.

### Sdklib 1.9.2

- Fix bug in HAR requests (urlencoded params were encoded twice).
- Add 'timeout' attribute to http\_request\_context.

### Sdklib 1.9.1

- Add getparent method to LxmlElem class.

### Sdklib 1.9.0

- Put 'incognito\_mode' as class attribute.
- Add cache decorator for python 3+.

## 6.7.6 Sdklib 1.8.x series

### Sdklib 1.8.11

- Fix 11paths authorization bug in 'POST'/'PUT' json requests without body.
- Headers as case insensitive dictionary.

### Sdklib 1.8.10

- Fix 11paths authorization bug in requests with query params.

### Sdklib 1.8.9

- Fix 11paths authorization bug in some 'POST', 'PUT' requests.

### Sdklib 1.8.8

- Create HTMLElem including AbstractBaseHTML functionality.
- Add HAR objects.
- Add cookie property to HttpRequestContext.
- Do not add X\_11PATHS\_BODY\_HASH header when body is empty.
- Refactor HttpResponse.
- Add find\_by\_name method to html objects.

### **Sdklib 1.8.7**

- Update cookies rather than replace them.
- Fix “The HTTP reason phrase should not be” behave step.
- Add “The HTTP reason phrase should contain” behave step.
- Add BaseHttpResponse class.
- Fix some bugs (#50).

### **Sdklib 1.8.6**

- Fix l1paths authorization bug.
- Add insensitive (sort) parameter to to\_key\_val\_list function.

### **Sdklib 1.8.5.3**

- Fix behave steps bug.

### **Sdklib 1.8.5.2**

- Fix Api11PathsResponse bug.

### **Sdklib 1.8.5.1**

- Fix Api11PathsResponse bug.

### **Sdklib 1.8.5**

- Create AbstractHttpResponse class.
- Remove some properties from Api11PathsResponse.

### **Sdklib 1.8.4**

- Make get Api11PathsResponse data, error, code and message case insensitive.
- Add CaseInsensitiveDict class.
- Fix some bugs.

### **Sdklib 1.8.3**

- Add behave steps.
- Fix some bugs.
- Separate requirements\_dev.txt into different files.



### **Sdklib 1.8.2**

- Add Api11PathsResponse.

### **Sdklib 1.8.1**

- Add guess\_file\_name\_stream\_type\_header() method.
- Fix 11paths auth bug.

### **Sdklib 1.8**

- Add test coverage reports.
- Add some tests.
- Remove rrserver.
- Remove behave api steps.
- Remove unused modules.
- Fix some bugs.

## **6.7.7 Sdklib 1.7.x series**

### **Sdklib 1.7.2**

- Fix some bugs.

### **Sdklib 1.7.1**

- Fix some bugs.

### **Sdklib 1.7**

- Return more parameters into urlsplit function.
- Add generate\_url() function.
- Add lxml as optional requirement.
- Support xpath functions such as contains() using lxml.

## **6.7.8 Sdklib 1.6.x series**

### **Sdklib 1.6.6**

- Allow to redirect http requests.

### **Sdplib 1.6.5**

- Use an internal logger instance to print request and response logs.
- Add clear method to http request context.
- Add fields\_to\_clear attribute to http request context.

### **Sdplib 1.6**

- Custom content-type header has priority over renderer content-type.
- Get update\_content\_type parameter from context.
- Add BaseRenderer.
- Add CustomRenderer.

## **6.7.9 Sdplib 1.5.x series**

### **Sdplib 1.5.2**

- Add manifest.

### **Sdplib 1.5.1**

- Fix requirements.

### **Sdplib 1.5**

- Add HTML parsed response.

## **6.7.10 Sdplib 1.4.x series**

### **Sdplib 1.4.2**

- Fix bug: 11paths authorization header is not correct using multiples form params.

### **Sdplib 1.4.1**

- Fix bug: ensure url path params is never None.

### **Sdplib 1.4**

- Add XMLRenderer interface.
- Add json property to response.
- Add logger.
- Allow to replace content-type header value.

### 6.7.11 Sdklib 1.3.x series

- Add timeout decorator.
- Add generate\_url\_path function.
- Add new url parameters.
- Add get, post, put, patch and delete methods.
- Add XML response parser.
- Generate docs with sphinx.

### 6.7.12 Sdklib 1.2.x series

- Add incognito mode.

### 6.7.13 Sdklib 1.1.x series

- By default, no Content-type header in requests without body or files.
- Add file attribute to sdk response.
- Allow multipart body with custom content-type in data forms.
- Allow to add custom response\_class.

### 6.7.14 Sdklib 1.0.x series

#### Sdklib 1.0

- Use urllib3.

### 6.7.15 Sdklib 0.x series

#### Sdklib 0.5.2.1

- Bug fixing.

#### Sdklib 0.5.2

- Bug fixing.
- Allow passing files and form\_parameters as tuples when request is encoded multipart

#### Sdklib 0.5.1

- Bug fixing.

### **Sdklib 0.5**

- Add new parse as tuple list function.
- Add files parameter to http method.
- Infer content type header in all requests.

### **Sdklib 0.4.1**

- Add parameters to strf timetizer functions.

### **Sdklib 0.4**

- Add file functions.
- Add parse as tuple list function.

### **Sdklib 0.3**

- Initial version.

**S**

`sdplib.http.authorization`, 23  
`sdplib.http.renderers`, 18  
`sdplib.http.response`, 23  
`sdplib.http.session`, 20



## A

- AbstractAuthentication (class in *sd-klib.http.authorization*), 23
- AbstractBaseHttpResponse (class in *sd-klib.http.response*), 23
- Api11PathsResponse (class in *sd-klib.http.response*), 23
- apply\_authentication() (*sd-klib.http.authorization.AbstractAuthentication* method), 23
- apply\_authentication() (*sd-klib.http.authorization.BasicAuthentication* method), 23
- apply\_authentication() (*sd-klib.http.authorization.X11PathsAuthentication* method), 23
- as\_cookie\_header\_value() (*sd-klib.http.session.Cookie* method), 20

## B

- BaseRenderer (class in *sd-klib.http.renderers*), 18
- basic\_authorization() (in module *sd-klib.http.authorization*), 23
- BasicAuthentication (class in *sd-klib.http.authorization*), 23
- body (*sd-klib.http.response.Response* attribute), 24

## C

- case\_insensitive\_dict (*sd-klib.http.response.JsonResponseMixin* attribute), 24
- code (*sd-klib.http.response.Error* attribute), 24
- collection\_format (*sd-klib.http.renderers.FormRenderer* attribute), 19
- collection\_format (*sd-klib.http.renderers.PlainTextRenderer* attribute), 19

COLLECTION\_SEPARATORS (*sd-klib.http.renderers.FormRenderer* attribute), 19

COLLECTION\_SEPARATORS (*sd-klib.http.renderers.PlainTextRenderer* attribute), 19

Cookie (class in *sd-klib.http.session*), 20

cookie (*sd-klib.http.response.AbstractBaseHttpResponse* attribute), 23

CustomRenderer (class in *sd-klib.http.renderers*), 18

## D

data (*sd-klib.http.response.Api11PathsResponse* attribute), 24

data (*sd-klib.http.response.Response* attribute), 24

DEFAULT\_CONTENT\_TYPE (*sd-klib.http.renderers.BaseRenderer* attribute), 18

DEFAULT\_CONTENT\_TYPE (*sd-klib.http.renderers.FormRenderer* attribute), 19

DEFAULT\_CONTENT\_TYPE (*sd-klib.http.renderers.JSONRenderer* attribute), 19

DEFAULT\_CONTENT\_TYPE (*sd-klib.http.renderers.XMLRenderer* attribute), 19

## E

encode\_params() (*sd-klib.http.renderers.BaseRenderer* method), 18

encode\_params() (*sd-klib.http.renderers.CustomRenderer* method), 18

encode\_params() (*sd-klib.http.renderers.FormRenderer* method), 19

encode\_params() (*sd-klib.http.renderers.JSONRenderer* method),

19  
 encode\_params () (sd-  
 klib.http.renderers.MultiPartRenderer method),  
 19  
 encode\_params () (sd-  
 klib.http.renderers.PlainTextRenderer method),  
 19  
 encode\_params () (sd-  
 klib.http.renderers.XMLRenderer method),  
 19  
 Error (class in sdplib.http.response), 24  
 error (sdplib.http.response.Api11PathsResponse  
 attribute), 24

## F

FormRenderer (class in sdplib.http.renderers), 18

## G

get () (sdplib.http.session.Cookie method), 20  
 get\_content\_type () (sd-  
 klib.http.renderers.PlainTextRenderer method),  
 19  
 get\_primitive\_as\_string () (in module sd-  
 klib.http.renderers), 19  
 get\_renderer () (in module sdplib.http.renderers),  
 19  
 getcookie () (sdplib.http.session.Cookie method), 20  
 guess\_file\_name\_stream\_type\_header () (in  
 module sdplib.http.renderers), 19

## H

headers (sdplib.http.response.AbstractBaseHttpResponse  
 attribute), 23  
 headers (sdplib.http.response.Response attribute), 24  
 html (sdplib.http.response.Response attribute), 24  
 http\_version (sdplib.http.response.Response at-  
 tribute), 24  
 HttpResponse (class in sdplib.http.response), 24

## I

is\_empty () (sdplib.http.session.Cookie method), 20  
 items () (sdplib.http.session.Cookie method), 20

## J

json (sdplib.http.response.Error attribute), 24  
 json (sdplib.http.response.JsonResponseMixin at-  
 tribute), 24  
 JSONRenderer (class in sdplib.http.renderers), 19  
 JsonResponseMixin (class in sdplib.http.response),  
 24

## L

load\_from\_headers () (sdplib.http.session.Cookie  
 method), 20

## M

message (sdplib.http.response.Error attribute), 24  
 MultiPartRenderer (class in sdplib.http.renderers),  
 19

## P

PlainTextRenderer (class in sdplib.http.renderers),  
 19

## R

raw (sdplib.http.response.Response attribute), 24  
 reason (sdplib.http.response.HttpResponse attribute),  
 24  
 Response (class in sdplib.http.response), 24

## S

sdplib.http.authorization (module), 23  
 sdplib.http.renderers (module), 18  
 sdplib.http.response (module), 23  
 sdplib.http.session (module), 20  
 status (sdplib.http.response.Response attribute), 24  
 status\_text (sdplib.http.response.Response at-  
 tribute), 24

## T

to\_string () (in module sdplib.http.renderers), 20

## U

update () (sdplib.http.session.Cookie method), 20  
 url\_encode () (in module sdplib.http.renderers), 20  
 urllib3\_response (sd-  
 klib.http.response.AbstractBaseHttpResponse  
 attribute), 23

## V

VALID\_COLLECTION\_FORMATS (sd-  
 klib.http.renderers.FormRenderer attribute),  
 19  
 VALID\_COLLECTION\_FORMATS (sd-  
 klib.http.renderers.PlainTextRenderer at-  
 tribute), 19

## X

X11PathsAuthentication (class in sd-  
 klib.http.authorization), 23  
 x\_11paths\_authentication () (in module sd-  
 klib.http.authorization), 23  
 xml (sdplib.http.response.Response attribute), 24  
 XMLRenderer (class in sdplib.http.renderers), 19