
python-keycloak Documentation

Release 0.27.0

Marcos Pereira

May 15, 2022

CONTENTS:

1	Welcome to python-keycloak’s documentation!	3
2	Installation	5
3	Dependencies	7
3.1	Tests Dependencies	7
4	Bug reports	9
5	Documentation	11
6	Contributors	13
7	Usage	15

- [genindex](#)
- [modindex](#)
- [search](#)

WELCOME TO PYTHON-KEYCLOAK'S DOCUMENTATION!

python-keycloak is a Python package providing access to the Keycloak API.

INSTALLATION

Via Pypi Package:

```
$ pip install python-keycloak
```

Manually:

```
$ python setup.py install
```


DEPENDENCIES

python-keycloak depends on:

- Python 3
- `requests`
- `python-jose`

3.1 Tests Dependencies

- `unittest`
- `httmock`

BUG REPORTS

Please report bugs and feature requests at <https://github.com/marcospereirampj/python-keycloak/issues>

DOCUMENTATION

The documentation for python-keycloak is available on [readthedocs](#).

CONTRIBUTORS

- Agriness Team
- Marcos Pereira
- Martin Devlin
- Shon T. Urbas
- Markus Spanier
- Remco Kranenburg
- Armin
- Njordr
- Josha Inglis
- Alex
- Ewan Jone

USAGE

Main methods:

```
# KEYCLOAK OPENID

from keycloak import KeycloakOpenID

# Configure client
keycloak_openid = KeycloakOpenID(server_url="http://localhost:8080/auth/",
                                client_id="example_client",
                                realm_name="example_realm",
                                client_secret_key="secret",
                                verify=True)

# Optionally, you can pass custom headers that will be added to all HTTP calls
# keycloak_openid = KeycloakOpenID(server_url="http://localhost:8080/auth/",
#                                 client_id="example_client",
#                                 realm_name="example_realm",
#                                 client_secret_key="secret",
#                                 verify=True,
#                                 custom_headers={'CustomHeader': 'value'})

# Optionally, you can pass proxies as well that will be used in all HTTP calls. See requests documentation for more details
# `requests-proxies` <https://2.python-requests.org/en/master/user/advanced/#id10>`
# keycloak_openid = KeycloakOpenID(server_url="http://localhost:8080/auth/",
#                                 client_id="example_client",
#                                 realm_name="example_realm",
#                                 client_secret_key="secret",
#                                 verify=True,
#                                 proxies={'http': 'http://10.10.1.10:3128', 'https': 'http://10.10.1.
#                                     ↪ 10:1080'})

# Get WellKnow
config_well_know = keycloak_openid.well_know()

# Get Token
token = keycloak_openid.token("user", "password")
token = keycloak_openid.token("user", "password", totp="012345")

# Get Userinfo
```

(continues on next page)

(continued from previous page)

```

userinfo = keycloak_openid.userinfo(token['access_token'])

# Refresh token
token = keycloak_openid.refresh_token(token['refresh_token'])

# Logout
keycloak_openid.logout(token['refresh_token'])

# Get Certs
certs = keycloak_openid.certs()

# Get RPT (Entitlement)
token = keycloak_openid.token("user", "password")
rpt = keycloak_openid.entitlement(token['access_token'], "resource_id")

# Introspect RPT
token_rpt_info = keycloak_openid.introspect(keycloak_openid.introspect(token['access_
↪ token'], rpt=rpt['rpt'],
                                token_type_hint="requesting_party_token"))

# Introspect Token
token_info = keycloak_openid.introspect(token['access_token']))

# Decode Token
KEYCLOAK_PUBLIC_KEY = "secret"
options = {"verify_signature": True, "verify_aud": True, "verify_exp": True}
token_info = keycloak_openid.decode_token(token['access_token'], key=KEYCLOAK_PUBLIC_KEY,
↪ options=options)

# Get permissions by token
token = keycloak_openid.token("user", "password")
keycloak_openid.load_authorization_config("example-authz-config.json")
policies = keycloak_openid.get_policies(token['access_token'], method_token_info='decode
↪ ', key=KEYCLOAK_PUBLIC_KEY)
permissions = keycloak_openid.get_permissions(token['access_token'], method_token_info=
↪ 'introspect')

# KEYCLOAK ADMIN

from keycloak import KeycloakAdmin

keycloak_admin = KeycloakAdmin(server_url="http://localhost:8080/auth/",
                                username='example-admin',
                                password='secret',
                                realm_name="example_realm",
                                verify=True)

# Optionally, you can pass custom headers that will be added to all HTTP calls
#keycloak_admin = KeycloakAdmin(server_url="http://localhost:8080/auth/",
#                                username='example-admin',
#                                password='secret',
#                                realm_name="example_realm",

```

(continues on next page)

(continued from previous page)

```

#             verify=True,
#             custom_headers={'CustomHeader': 'value'})
#
# You can also authenticate with client_id and client_secret
#keycloak_admin = KeycloakAdmin(server_url="http://localhost:8080/auth/",
#                               client_id="example_client",
#                               client_secret_key="secret",
#                               realm_name="example_realm",
#                               verify=True,
#                               custom_headers={'CustomHeader': 'value'})

# Add user
new_user = keycloak_admin.create_user({"email": "example@example.com",
                                       "username": "example@example.com",
                                       "enabled": True,
                                       "firstName": "Example",
                                       "lastName": "Example",
                                       "realmRoles": ["user_default", ],
                                       "attributes": {"example": "1,2,3,3,"}})

# Add user and set password
new_user = keycloak_admin.create_user({"email": "example@example.com",
                                       "username": "example@example.com",
                                       "enabled": True,
                                       "firstName": "Example",
                                       "lastName": "Example",
                                       "credentials": [{"value": "secret", "type": "password"}],
                                       "realmRoles": ["user_default", ],
                                       "attributes": {"example": "1,2,3,3,"}})

# User counter
count_users = keycloak_admin.users_count()

# Get users Returns a list of users, filtered according to query parameters
users = keycloak_admin.get_users({})

# Get user ID from name
user-id-keycloak = keycloak_admin.get_user_id("example@example.com")

# Get User
user = keycloak_admin.get_user("user-id-keycloak")

# Update User
response = keycloak_admin.update_user(user_id="user-id-keycloak",
                                     payload={'firstName': 'Example Update'})

# Update User Password
response = set_user_password(user_id="user-id-keycloak", password="secret",
                             ↪temporary=True)

# Delete User

```

(continues on next page)

(continued from previous page)

```

response = keycloak_admin.delete_user(user_id="user-id-keycloak")

# Get consents granted by the user
consents = keycloak_admin.consents_user(user_id="user-id-keycloak")

# Send User Action
response = keycloak_admin.send_update_account(user_id="user-id-keycloak",
                                              payload=json.dumps(['UPDATE_PASSWORD']))

# Send Verify Email
response = keycloak_admin.send_verify_email(user_id="user-id-keycloak")

# Get sessions associated with the user
sessions = keycloak_admin.get_sessions(user_id="user-id-keycloak")

# Get themes, social providers, auth providers, and event listeners available on this_
↪ server
server_info = keycloak_admin.get_server_info()

# Get clients belonging to the realm Returns a list of clients belonging to the realm
clients = keycloak_admin.get_clients()

# Get client - id (not client-id) from client by name
client_id=keycloak_admin.get_client_id("my-client")

# Get representation of the client - id of client (not client-id)
client = keycloak_admin.get_client(client_id="client_id")

# Get all roles for the realm or client
realm_roles = keycloak_admin.get_realm_roles()

# Get all roles for the client
client_roles = keycloak_admin.get_client_roles(client_id="client_id")

# Get client role
role = keycloak_admin.get_client_role(client_id="client_id", role_name="role_name")

# Warning: Deprecated
# Get client role id from name
role_id = keycloak_admin.get_client_role_id(client_id="client_id", role_name="test")

# Create client role
keycloak_admin.create_client_role(client_id="client_id", {'name': 'roleName', 'clientRole
↪ ': True})

# Get client role id from name
role_id = keycloak_admin.get_client_role_id(client_id=client_id, role_name="test")

# Get all roles for the realm or client
realm_roles = keycloak_admin.get_roles()

# Assign client role to user. Note that BOTH role_name and role_id appear to be required.

```

(continues on next page)

(continued from previous page)

```

keycloak_admin.assign_client_role(client_id="client_id", user_id="user_id", role_id=
↳ "role_id", role_name="test")

# Assign realm roles to user. Note that BOTH role_name and role_id appear to be required.
keycloak_admin.assign_realm_roles(client_id="client_id", user_id="user_id", roles=[{
↳ "roles_representation"}})

# Delete realm roles of user. Note that BOTH role_name and role_id appear to be required.
keycloak_admin.deletes_realm_roles_of_user(user_id="user_id", roles=[{"roles_
↳ representation"}})

# Create new group
group = keycloak_admin.create_group(name="Example Group")

# Get all groups
groups = keycloak_admin.get_groups()

# Get group
group = keycloak_admin.get_group(group_id='group_id')

# Get group by path
group = keycloak_admin.get_group_by_path(path='/group/subgroup', search_in_
↳ subgroups=True)

# Function to trigger user sync from provider
sync_users(storage_id="storage_di", action="action")

# List public RSA keys
components = keycloak_admin.keys

# List all keys
components = keycloak_admin.get_components(query={"parent":"example_realm", "type":"org.
↳ keycloak.keys.KeyProvider"})

# Create a new RSA key
component = keycloak_admin.create_component({"name":"rsa-generated", "providerId":"rsa-
↳ generated", "providerType":"org.keycloak.keys.KeyProvider", "parentId":"example_realm",
↳ "config":{"priority":["100"], "enabled":["true"], "active":["true"], "algorithm":["RS256
↳ "], "keySize":["2048"]}})

# Update the key
component_details['config']['active'] = ["false"]
keycloak_admin.update_component(component['id'])

# Delete the key
keycloak_admin.delete_component(component['id'])

```