Pulp - Task #3580

Document how to generate REST API bindings using swagger-codegen

04/19/2018 03:44 PM - dkliban@redhat.com

Status:	CLOSED - COMPLETE		**Start date:**	
Priority:	Normal		**Due date:**	
Assignee:	dkliban@redhat.com		**% Done:**	0%
Category:			**Estimated time:**	0:00 hour
Sprint/Milestone:	3.0			
Platform Release:			**QA Contact:**	
Blocks Release:			**Complexity:**	
Backwards Incompatible:	No		**Smash Test:**	
Groomed:	Yes		**Verified:**	No
Sprint Candidate:	Yes		**Verification Required:**	No
Tags:	API Bindings, Pulp 2		**Sprint:**	Sprint 42

Description

With help from swagger-codegen[0], Pulp's API schema can be used to generate bindings in many different languages.

I was able to GET the schema in JSON format from http://localhost:8000/api/v3/docs/api.json and then uploaded the JSON file to swagger editor[1]. I then clicked on "Generate Client" and selected "Python". This produced a ZIP archive that contained a python package with the bindings and documentation. The hosted solution is backed by a Java application called swagger-codegen[2].

The goal of this task is to document how swagger-codegen can be used from the command line to generate bindings in any language supported by swagger-codegen.

[0] https://swagger.io/swagger-codegen/
[1] http://editor.swagger.io/#/
[2] https://github.com/swagger-api/swagger-codegen

Related issues:

Copied from Python Support - Task #3579: Publish REST API bindings for Python...		**NEW**

History

#1 - 04/19/2018 03:44 PM - dkliban@redhat.com

- Copied from Task #3579: Publish REST API bindings for Python on PyPI added

#2 - 04/20/2018 08:05 PM - dkliban@redhat.com

- Subject changed from Publish REST API bindings for Ruby on rubygems.org to Document how to generate REST API bindings using swagger-codegen

- Description updated

- Tags Documentation added

#3 - 04/23/2018 02:25 PM - CodeHeeler

- Groomed changed from No to Yes

#4 - 04/26/2018 02:13 PM - daviddavis

- Sprint set to Sprint 36

Be sure to add a note that any installed plugins will be included in the bindings.

#5 - 05/11/2018 11:01 PM - rchan

- Sprint changed from Sprint 36 to Sprint 37

#6 - 06/01/2018 11:12 PM - rchan

- Sprint changed from Sprint 37 to Sprint 38

#7 - 06/26/2018 03:16 PM - rchan

- Sprint changed from Sprint 38 to Sprint 39

#8 - 07/06/2018 07:40 PM - daviddavis

Apparently the instructions are here:

https://www.redhat.com/archives/pulp-dev/2018-May/msg00098.html

However, I am not too keen on having to manually apply a patch every time we want to generate our bindings. Is there a way to submit a patch upstream or fork the swagger-codegen repo maybe?

#9 - 07/06/2018 07:53 PM - dkliban@redhat.com

The instructions should tell the user to download the jar from fedorapeople.org[0].

https://repos.fedorapeople.org/pulp/pulp/swagger/swagger-codegen-cli.jar

#10 - 07/12/2018 03:26 PM - daviddavis

I'm testing out the python bindings but they don't seem to work. I generated the python bindings and am trying to call the versions content endpoint:

```
from swagger_client.api.repositories_api import RepositoriesApi
api = RepositoriesApi()
api.repositories_versions_content("
http://localhost:8000/pulp/api/v3/repositories/3a723819-6302-4352-8ac6-3875ac7b7429/versions/2/") # fails
api.repositories_versions_content("/repositories/3a723819-6302-4352-8ac6-3875ac7b7429/versions/2/")
# doesn't work either
```

It looks like the bindings are calling:

```
[12/Jul/2018 13:20:23] "GET /pulp/api/v3http%3A%2F%2Flocalhost%3A8000%2Fpulp%2Fapi%2Fv3%2Frepositories%2F3a723
819-6302-4352-8ac6-3875ac7b7429%2Fversions%2F2%2F HTTP/1.1" 404 3183
```

It's also kind of strange that there's no "content" in the url which leads me to believe that I have to specify
/pulp/api/v3/repositories/3a723819-6302-4352-8ac6-3875ac7b7429/versions/2/content/ as the href but that doesn't seem right either.

Edit: Found a solution to the urlencoding. Looks like you have to set safe_chars_for_path_param to '/' in the configuration of the python bindings.

#11 - 07/16/2018 01:11 AM - dkliban@redhat.com

- Sprint changed from Sprint 39 to Sprint 40

#12 - 07/17/2018 03:15 PM - daviddavis

- Tags API Bindings added

- Tags deleted (Documentation, Pulp 3)

#13 - 08/06/2018 03:16 PM - rchan

- Sprint changed from Sprint 40 to Sprint 41

#14 - 08/27/2018 03:04 PM - rchan

- Sprint changed from Sprint 41 to Sprint 42

#15 - 09/04/2018 05:27 PM - dkliban@redhat.com

- Status changed from NEW to ASSIGNED

- Assignee set to dkliban@redhat.com

#16 - 09/07/2018 10:25 PM - dkliban@redhat.com

- Status changed from ASSIGNED to CLOSED - COMPLETE

I wrote a blog post about this.

https://pulpproject.org/2018/09/04/generate-pulp-3-python-client-using-swagger-codegen/

#17 - 04/15/2019 10:12 PM - bmbouter

- Tags Pulp 2 added