TEAM 9 RESTLER REPORT

Overview

RESTler was used to fuzz test the API endpoints of our project. The tool identified various issues that were not detected by standard unit tests, providing valuable insights into potential areas for improvement in our API implementation. The tool was executed using the following commands:

./bin/restler/Restler fuzz-lean \

  --grammar_file ./Compile/grammar.py \

  --settings ./Compile/settings.json \

  --dictionary_file ./Compile/dict.json

Issues Identified

RESTler discovered the following issues during the testing process:

1. **404 Not Found Errors on Valid Inputs**:

   o Multiple GET requests to endpoints such as /package/{id}/rate and /package/{id}/cost returned a 404 status, even when valid input formats were provided.

   o This indicates a potential issue with the API's handling of non-existent resources.

2. **400 Bad Request for Malformed Payloads**:

   o Requests to POST /package and POST /package/byRegEx failed with 400 Bad Request errors when provided with malformed payloads.

   o RESTler revealed that some fields were of the wrong type (e.g., object instead of string) or were missing entirely.

3. **Authentication Token Issues**:

   o Some requests, such as POST /package/byRegEx, failed due to missing or malformed authentication tokens. This emphasizes the need for robust token validation.

4. **Unspecified Host in Requests**:

   o Certain requests were flagged due to an unspecified host header, highlighting the importance of complete request definitions.

Coverage Metrics

- **Successful Requests**: 4

- **Total Requests Attempted**: 10

The coverage_failures_to_investigate.txt file provides detailed information on failing requests and blocked dependent requests.

Improvements for Future Testing

Based on the findings, the following changes will be incorporated into our testing practices:

1. **Enhanced Validation Testing**:

   o Ensure comprehensive input validation tests for all endpoints, particularly for edge cases involving malformed or missing data.

2. **Resource Handling Tests**:

   o Develop tests to verify the API's behavior when interacting with non-existent resources.
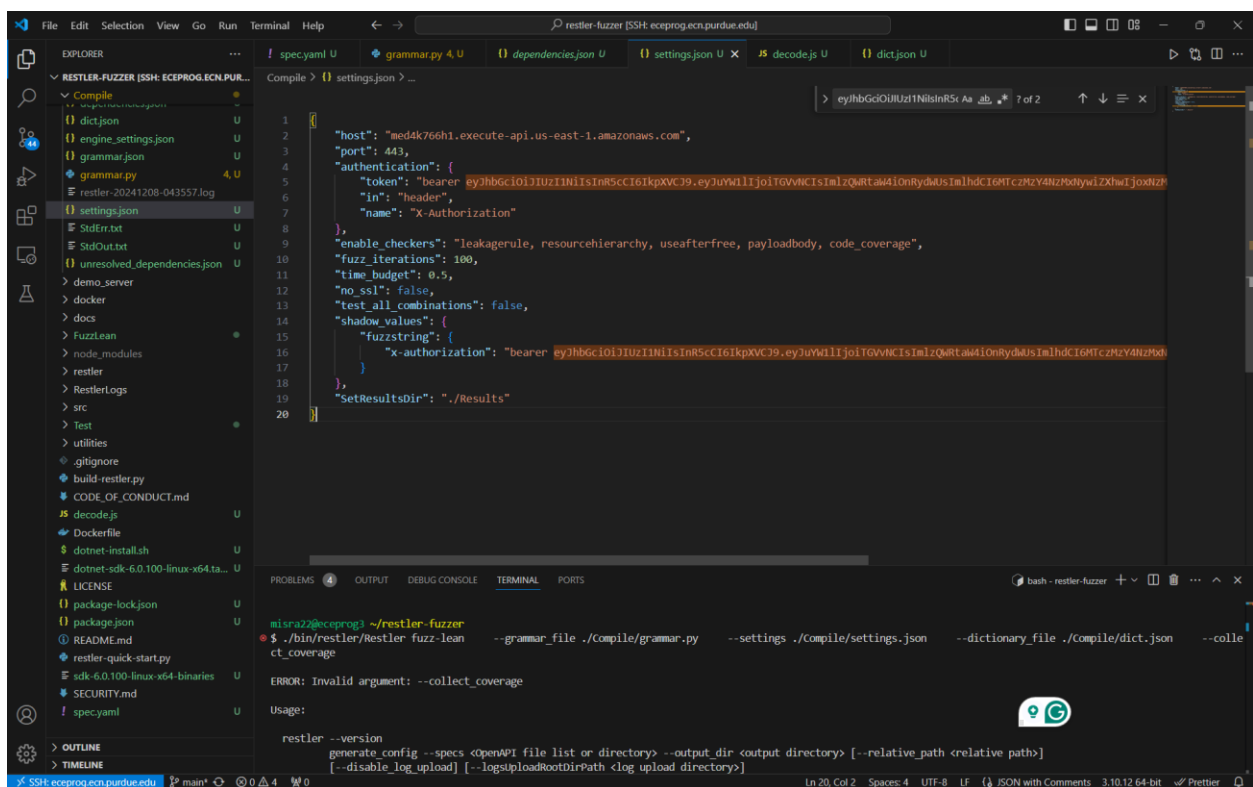
3. **Authentication Tests**:

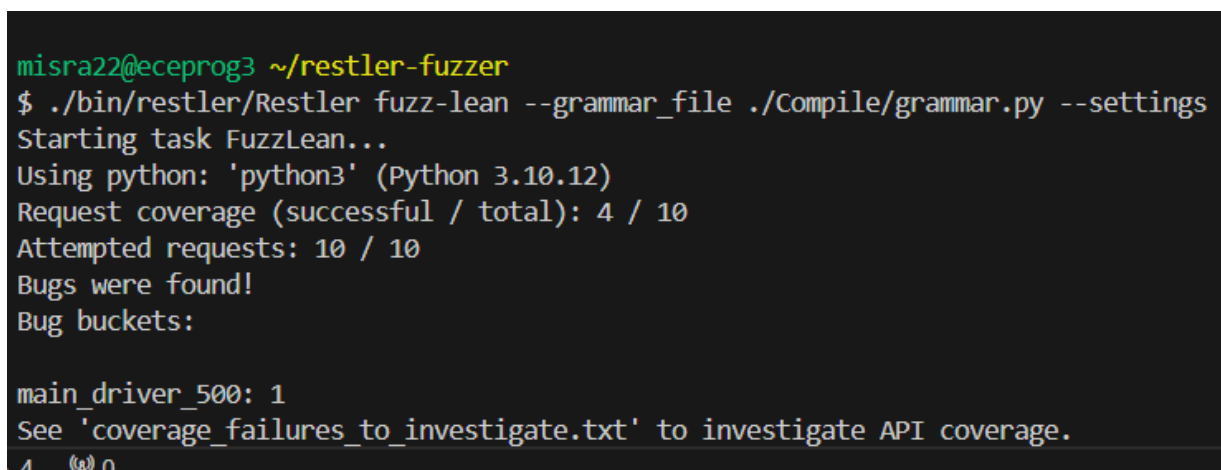   o Expand tests to include cases with invalid, expired, or missing tokens.

4. **Request Headers Validation**:

   o Verify that all requests include necessary headers, such as Host and Authorization.

Some screenshots to show we did this are below

^ Our settings.json

^Request coverage

We will now put the final report here for the failure of coverage reasons

misra22@eceprog3 ~/restler-fuzzer

$ cat */coverage_failures_to_investigate.txt

This file contains the failing requests, ordered by the number of blocked dependent requests.

To improve coverage, fix the failing requests in the order listed in this file.

Note: some requests are labeled as 'sequence failure'.

This means the request depends on another request that is failing intermittently.

For example, a DELETE request for a resource may be skipped because the resource

PUT request failed due to exceeding quota. The same PUT request succeeded earlier (and may

succeed later depending on the resource clean-up behavior in the service), so it is

considered an intermittent failure.

Request: Get /package/{id}/rate

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /dev/package/123567192081501/rate HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:47 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: d83f9fb7-207e-454b-96c7-0cbe04fafbcc\r\nAccess-Control-Allow-Origin: *\r\nAccess-Control-Allow-Headers: Content-Type, Authorization\r\nx-amz-apigw-id: Cf06iGFSIAMEd6g=\r\nAccess-Control-Allow-Methods: GET, POST, PUT, DELETE, OPTIONS\r\nX-Amzn-Trace-Id: Root=1-6756350f-1cb695a04e07123f2cd61449;Parent=7cf3d385ed60d758;Sampled=0;Lineage=1:cd4a8505:0\r\n\r\n{"message":"Package does not exist."}

+++ Combination 2 +++:

Request sequence:

> GET /dev/package/fuzzstring/rate HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:48 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: 43248238-11f8-464a-9a00-f5a8dd582505\r\nAccess-Control-Allow-Origin: *\r\nAccess-Control-Allow-Headers: Content-Type, Authorization\r\nx-amz-apigw-id: Cf06kEhDIAMET0A=\r\nAccess-Control-Allow-Methods: GET, POST, PUT, DELETE, OPTIONS\r\nX-Amzn-Trace-Id: Root=1-67563510-324bb75232af01cc3f94603f;Parent=4bc4f6f3594192ca;Sampled=0;Lineage=1:cd4a8505:0\r\n\r\n{"message":"Package does not exist."}

+++ Combination 3 +++:

Request sequence:

> GET /dev/package/123567192081501/rate HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:48 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: 83942c59-7343-407c-85e1-687522c14381\r\nAccess-Control-Allow-Origin: *\r\nAccess-Control-Allow-Headers: Content-Type, Authorization\r\nx-amz-apigw-id: Cf06kGxWIAMES6Q=\r\nAccess-Control-Allow-Methods: GET, POST, PUT, DELETE, OPTIONS\r\nX-Amzn-Trace-Id: Root=1-67563510-4e59ccba14f5a8395a43af40;Parent=5b196121059b7ea1;Sampled=0;Lineage=1:cd4a8505:0\r\n\r\n{"message":"Package does not exist."}

+++ Combination 4 +++:

Request sequence:

> GET /dev/package/fuzzstring/rate HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:48 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: 42623beb-c07d-4a81-bed1-d45697a1cf2e\r\nAccess-Control-Allow-Origin: *\r\nAccess-Control-Allow-Headers: Content-Type, Authorization\r\nx-amz-apigw-id: Cf06lGDBoAMEgOg=\r\nAccess-Control-Allow-Methods: GET, POST, PUT, DELETE, OPTIONS\r\nX-Amzn-Trace-Id: Root=1-67563510-0f324ef24a229783730ccd8a;Parent=1d1c83ebbcfe018f;Sampled=0;Lineage=1:cd4a8505:0\r\n\r\n{"message":"Package does not exist."}

Request: Post /package/{id}

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> POST /dev/package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n "Name":\n   "fuzzstring"\n   ,\n   "Version":"1.2.3",\n   "ID":\n "123567192081501"\n   }\n ,\n "data":\n   {\n   "Name":\n   { "fuzz": false }\n   ,\n   "Content":"fuzzstring",\n   "URL":"fuzzstring",\n "debloat":true,\n   "JSProgram":"fuzzstring"\n   }\n }\r\n

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:49 GMT\r\nContent-Type: application/json\r\nContent-Length: 338\r\nConnection: keep-alive\r\nx-amzn-RequestId: 9409627a-3063-4293-b149-a541cdd3a9f6\r\nx-amz-apigw-id: Cf062HRFIAMEPIA=\r\nX-Amzn-Trace-Id: Root=1-67563511-49fd6c250dc1e62246323e01;Parent=2aeaa0d26c9d12e0;Sampled=0;Lineage=1:25886086:0\r\n\r\n{"description":"There is missing field(s) in the PackageID or it is formed improperly, or is invalid.","details":[{"code":"invalid_type","expected":"string","received":"object","path":["data","Name"],"message":"Expected string, received object"},{"validation":"url","code":"invalid_string","message":"Invalid url","path":["data","URL"]}]}

+++ Combination 2 +++:

Request sequence:

> POST /dev/package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n "Name":\n   "fuzzstring"\n   ,\n   "Version":"1.2.3",\n   "ID":\n "fuzzstring"\n   }\n ,\n "data":\n   {\n   "Name":\n   { "fuzz": false }\n   ,\n "Content":"fuzzstring",\n   "URL":"fuzzstring",\n   "debloat":true,\n "JSProgram":"fuzzstring"\n   }\n }\r\n

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:49 GMT\r\nContent-Type: application/json\r\nContent-Length: 338\r\nConnection: keep-alive\r\nx-amzn-RequestId: befd92db-e0cd-4e21-a18e-fae482c1d1ae\r\nx-amz-apigw-id: Cf062E46IAMEKqA=\r\nX-Amzn-Trace-Id: Root=1-67563511-358af7ff4defa5722346c368;Parent=3a60b8f311ba7673;Sampled=0;Lineage=1:25886086:0\r\n\r\n{"description":"There is missing field(s) in the PackageID or it is formed improperly, or is

invalid.","details":[{"code":"invalid_type","expected":"string","received":"object","path":["data","Name"],"message":"Expected string, received object"},{"validation":"url","code":"invalid_string","message":"Invalid url","path":["data","URL"]}]}

+++ Combination 3 +++:

Request sequence:

> POST /dev/package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n "Name":\n   "fuzzstring"\n   ,\n   "Version":"fuzzstring",\n   "ID":\n "123567192081501"\n   }\n ,\n "data":\n   {\n   "Name":\n   { "fuzz": false }\n   ,\n   "Content":"fuzzstring",\n   "URL":"fuzzstring",\n "debloat":true,\n   "JSProgram":"fuzzstring"\n   }\n }\r\n

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:49 GMT\r\nContent-Type: application/json\r\nContent-Length: 338\r\nConnection: keep-alive\r\nx-amzn-RequestId: 06575790-98f3-49e9-95a6-d923566af57e\r\nx-amz-apigw-id: Cf063Ea-oAMEGOw=\r\nX-Amzn-Trace-Id: Root=1-67563511-3e6e0b602adf909d74fd2a89;Parent=1d16425e68dd765e;Sampled=0;Lineage=1:25886086:0\r\n\r\n{"description":"There is missing field(s) in the PackageID or it is formed improperly, or is invalid.","details":[{"code":"invalid_type","expected":"string","received":"object","path":["data","Name"],"message":"Expected string, received object"},{"validation":"url","code":"invalid_string","message":"Invalid url","path":["data","URL"]}]}

+++ Combination 4 +++:

Request sequence:

> POST /dev/package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n "Name":\n   "fuzzstring"\n   ,\n   "Version":"fuzzstring",\n   "ID":\n "fuzzstring"\n   }\n ,\n "data":\n   {\n   "Name":\n   { "fuzz": false }\n   ,\n "Content":"fuzzstring",\n   "URL":"fuzzstring",\n   "debloat":true,\n "JSProgram":"fuzzstring"\n   }\n }\r\n

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:50 GMT\r\nContent-Type: application/json\r\nContent-Length: 338\r\nConnection: keep-alive\r\nx-amzn-RequestId: 8608c790-d524-4c90-8da1-b6c99b224b4c\r\nx-amz-apigw-id: Cf064F19oAMEVtQ=\r\nX-Amzn-Trace-Id: Root=1-67563512-73554fbb1d31291349f414dc;Parent=310c965fc6635ad2;Sampled=0;Lineage=1:25886086:0\r\n\r\n{"description":"There is missing field(s) in the PackageID or it is formed

improperly, or is invalid.","details":[{"code":"invalid_type","expected":"string","received":"object","path":["data","Name"],"message":"Expected string, received object"},{"validation":"url","code":"invalid_string","message":"Invalid url","path":["data","URL"]}]}

+++ Combination 5 +++:

Request sequence:

> POST /dev/package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n   "Name":\n "fuzzstring"\n   ,\n   "Version":"1.2.3",\n   "ID":\n "123567192081501"\n   }\n ,\n "data":\n   {\n   "Name":\n   { "fuzz": false }\n   ,\n   "Content":"fuzzstring",\n   "URL":"fuzzstring",\n "debloat":true,\n   "JSProgram":"fuzzstring"\n   }\n }\r\n

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:50 GMT\r\nContent-Type: application/json\r\nContent-Length: 338\r\nConnection: keep-alive\r\nx-amzn-RequestId: 35af3165-864c-40d6-98a7-c20f7941d611\r\nx-amz-apigw-id: Cf064G7aIAMEQ7g=\r\nX-Amzn-Trace-Id: Root=1-67563512-5c2b6fb251b4ab393b33e511;Parent=559591b93c8678d6;Sampled=0;Lineage=1:25886086:0\r\n\r\n{"description":"There is missing field(s) in the PackageID or it is formed improperly, or is invalid.","details":[{"code":"invalid_type","expected":"string","received":"object","path":["data","Name"],"message":"Expected string, received object"},{"validation":"url","code":"invalid_string","message":"Invalid url","path":["data","URL"]}]}

Request: Post /package

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> POST /dev/package HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n "Name":\n   { "fuzz": false }\n ,\n "Content":"fuzzstring",\n "URL":"fuzzstring",\n "debloat":true,\n "JSProgram":"fuzzstring"}\r\n

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:51 GMT\r\nContent-Type: application/json\r\nContent-Length: 125\r\nConnection: keep-alive\r\nx-amzn-

RequestId: c4085be6-4ac4-437a-8626-e45923c8b60c\r\nx-amz-apigw-id: Cf07CEKzIAMEfbg=\r\nX-Amzn-Trace-Id: Root=1-67563513-111617b03324b3440aa71f50;Parent=5ccf82794edf8cc6;Sampled=0;Lineage=1:dc435d12 :0\r\n\r\n{"description":"There2 is missing field(s) in the PackageData or it is formed improperly (e.g. Content and URL ar both set)"}

+++ Combination 2 +++:

Request sequence:

> POST /dev/package HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{}

< HTTP/1.1 400 Bad Request\r\nDate: Mon, 09 Dec 2024 00:08:51 GMT\r\nContent-Type: application/json\r\nContent-Length: 125\r\nConnection: keep-alive\r\nx-amzn-RequestId: d6703196-7167-4d8b-b7cf-0405075c1286\r\nx-amz-apigw-id: Cf07EHKKIAMEGDw=\r\nX-Amzn-Trace-Id: Root=1-67563513-26d9347139c278987ebe6340;Parent=7cd75c582c78e87f;Sampled=0;Lineage=1:dc435d1 2:0\r\n\r\n{"description":"There2 is missing field(s) in the PackageData or it is formed improperly (e.g. Content and URL ar both set)"}

Request: Post /package/byRegEx

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> POST /dev/package/byRegEx HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{\n   "RegEx":"fuzzstring"}\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:51 GMT\r\nContent-Type: application/json\r\nContent-Length: 2\r\nConnection: keep-alive\r\nx-amzn-RequestId: 993c8c4d-fbb5-45e3-a352-3e5b6cae4df7\r\nAccess-Control-Allow-Origin: *\r\nAccess-Control-Allow-Headers: Content-Type, X-Authorization\r\nx-amz-apigw-id: Cf07IGCvoAMEFOg=\r\nAccess-Control-Allow-Methods: GET, POST, PUT, DELETE, OPTIONS\r\nX-Amzn-Trace-Id: Root=1-67563513-45db3c7849fc990547eeb377;Parent=01d8722bc9379f2e;Sampled=0;Lineage=1:a60f5294 :0\r\n\r\n[]

+++ Combination 2 +++:

Request sequence:

> POST /dev/package/byRegEx HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\nContent-Type: application/json\r\n\r\n{"RegEx":"fuzzstring"}

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:51 GMT\r\nContent-Type: application/json\r\nContent-Length: 2\r\nConnection: keep-alive\r\nx-amzn-RequestId: 379368a5-2a1d-4ef3-8f8e-72bc3f6f8ada\r\nAccess-Control-Allow-Origin: *\r\nAccess-Control-Allow-Headers: Content-Type, X-Authorization\r\nx-amz-apigw-id: Cf07KG8LoAMEFVw=\r\nAccess-Control-Allow-Methods: GET, POST, PUT, DELETE, OPTIONS\r\nX-Amzn-Trace-Id: Root=1-67563513-798ced6a7e69c37e173a5830;Parent=0ff23e63bcf954c4;Sampled=0;Lineage=1:a60f5294:0\r\n\r\n[]

Request: Get /package/{id}/cost

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /dev/package/123567192081501/cost?dependency=true HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:52 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: d13205a2-c048-4829-9d90-70d29b5fc5db\r\nx-amz-apigw-id: Cf07RGrZIAMERmQ=\r\nX-Amzn-Trace-Id: Root=1-67563514-64743eea283fceee50233381;Parent=530c0f8e8ab99acc;Sampled=0;Lineage=1:46dd6cc7:0\r\n\r\n{"message":"Package does not exist."}

+++ Combination 2 +++:

Request sequence:

> GET /dev/package/fuzzstring/cost?dependency=true HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:52 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: 313b0452-5146-4937-bb59-4e91a3d17f3b\r\nx-amz-apigw-id: Cf07RGIuoAMEXJQ=\r\nX-Amzn-Trace-Id: Root=1-67563514-

5560f4853a4586155df897ae;Parent=57b9fd3d55f846b2;Sampled=0;Lineage=1:46dd6cc7:0\r\n\r\n{"message":"Package does not exist."}

+++ Combination 3 +++:

Request sequence:

> GET /dev/package/123567192081501/cost HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:52 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: 27b12e73-a673-444c-a722-a66f9357859a\r\nx-amz-apigw-id: Cf07SHMYoAMEJAQ=\r\nX-Amzn-Trace-Id: Root=1-67563514-0dc3718b7e707c4c32c47dfc;Parent=3114fac765deae96;Sampled=0;Lineage=1:46dd6cc7:0\r\n\r\n{"message":"Package does not exist."}

+++ Combination 4 +++:

Request sequence:

> GET /dev/package/fuzzstring/cost HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:52 GMT\r\nContent-Type: application/json\r\nContent-Length: 37\r\nConnection: keep-alive\r\nx-amzn-RequestId: 6ed777a3-1d67-437a-8df9-0e3fec51f490\r\nx-amz-apigw-id: Cf07TFVCoAMEGzQ=\r\nX-Amzn-Trace-Id: Root=1-67563514-2b06c90345a392601024a45a;Parent=0427b6f427e96d1e;Sampled=0;Lineage=1:46dd6cc7:0\r\n\r\n{"message":"Package does not exist."}

Request: Get /package/{id}

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /dev/package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:55 GMT\r\nContent-Type: application/json\r\nContent-Length: 31\r\nConnection: keep-alive\r\nx-amzn-RequestId:

4320e416-cbaf-4363-8e8e-bf18f40ef99f\r\nx-amz-apigw-id: Cf07UGo6oAMEDtA=\r\nX-Amzn-Trace-Id: Root=1-67563514-0dea7eff30fdf30f742482e8;Parent=3a1b633034f50b2a;Sampled=0;Lineage=1:5f4d19c6:0\r\n\r\n{"message":"Package not found"}

+++ Combination 2 +++:

Request sequence:

> GET /dev/package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:55 GMT\r\nContent-Type: application/json\r\nContent-Length: 31\r\nConnection: keep-alive\r\nx-amzn-RequestId: 2d072b9a-16dd-4903-b024-8eb1126dbf7b\r\nx-amz-apigw-id: Cf07qFrgoAMElRA=\r\nX-Amzn-Trace-Id: Root=1-67563517-52ad0a8c7bf3374f655d9ac6;Parent=0081dc3b1c8283ee;Sampled=0;Lineage=1:5f4d19c6:0\r\n\r\n{"message":"Package not found"}

+++ Combination 3 +++:

Request sequence:

> GET /dev/package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:55 GMT\r\nContent-Type: application/json\r\nContent-Length: 31\r\nConnection: keep-alive\r\nx-amzn-RequestId: ae7aef45-13e7-4782-9ba6-74b51d8ea8e3\r\nx-amz-apigw-id: Cf07rGl9oAMETIQ=\r\nX-Amzn-Trace-Id: Root=1-67563517-3d6290800baa574b70fc1a59;Parent=3af108ca153c5bec;Sampled=0;Lineage=1:5f4d19c6:0\r\n\r\n{"message":"Package not found"}

+++ Combination 4 +++:

Request sequence:

> GET /dev/package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: med4k766h1.execute-api.us-east-1.amazonaws.com\r\n\r\n

< HTTP/1.1 404 Not Found\r\nDate: Mon, 09 Dec 2024 00:08:55 GMT\r\nContent-Type: application/json\r\nContent-Length: 31\r\nConnection: keep-alive\r\nx-amzn-RequestId: 818ddf48-16e3-4ac4-8ebe-40c7319738e4\r\nx-amz-apigw-id: Cf07sFgEoAMEh3A=\r\nX-Amzn-Trace-Id: Root=1-67563517-15e492dc5f0b5bd447e6011c;Parent=6ff569f96561d6dd;Sampled=0;Lineage=1:5f4d19c6:0\r\n\r\n{"message":"Package not found"}

This file contains the failing requests, ordered by the number of blocked dependent requests.

To improve coverage, fix the failing requests in the order listed in this file.

Note: some requests are labeled as 'sequence failure'.

This means the request depends on another request that is failing intermittently.

For example, a DELETE request for a resource may be skipped because the resource

PUT request failed due to exceeding quota. The same PUT request succeeded earlier (and may

succeed later depending on the resource clean-up behavior in the service), so it is

considered an intermittent failure.

Request: Get /tracks

Number of blocked dependent requests: 0

> +++ Combination 1 +++:

Request sequence:

> GET /tracks HTTP/1.1\r\nAccept: application/json\r\nHost: \r\n\r\n

<

> +++ Combination 2 +++:

Request sequence:

> GET /tracks HTTP/1.1\r\nAccept: application/json\r\nHost: \r\n\r\n

<

Request: Get /package/{id}/rate

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /package/123567192081501/rate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 2 +++:

Request sequence:

> GET /package/fuzzstring/rate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 3 +++:

Request sequence:

> GET /package/123567192081501/rate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 4 +++:

Request sequence:

> GET /package/fuzzstring/rate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

Request: Put /authenticate

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> PUT /authenticate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nContent-Type: application/json\r\n\r\n{\n "User":\n   {\n   "name":"Alfalfa",\n "isAdmin":true\n   }\n ,\n "Secret":\n   {\n "password":"fuzzstring"\n   }\n }\r\n

<

+++ Combination 2 +++:

Request sequence:

> PUT /authenticate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nContent-Type: application/json\r\n\r\n{\n "User":\n   {\n   "name":"fuzzstring",\n "isAdmin":true\n   }\n ,\n "Secret":\n   {\n "password":"fuzzstring"\n   }\n }\r\n

<

+++ Combination 3 +++:

Request sequence:

> PUT /authenticate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nContent-Type: application/json\r\n\r\n{"User":{"name":"Alfalfa","isAdmin":true},"Secret":{"password":"fuzz string"}}

<

+++ Combination 4 +++:

Request sequence:

> PUT /authenticate HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nContent-Type: application/json\r\n\r\n{"User":{"name":"fuzzstring","isAdmin":true},"Secret":{"password":"f uzzstring"}}

<

Request: Delete /reset

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> DELETE /reset HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 2 +++:

Request sequence:

> DELETE /reset HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

Request: Post /package

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> POST /package HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n{\n   "Content":"fuzzstring",\n "URL":"fuzzstring",\n   "debloat":true,\n   "JSProgram":"fuzzstring"}\r\n

<

+++ Combination 2 +++:

Request sequence:

> POST /package HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n{}

<

Request: Post /package/byRegEx

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> POST /package/byRegEx HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\nContent-Type: application/json\r\n\r\n{\n   "RegEx":"fuzzstring"}\r\n

<

+++ Combination 2 +++:

Request sequence:

> POST /package/byRegEx HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n{\n "RegEx":"fuzzstring"}\r\n

<

+++ Combination 3 +++:

Request sequence:

> POST /package/byRegEx HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\nContent-Type: application/json\r\n\r\n{"RegEx":"fuzzstring"}

<

+++ Combination 4 +++:

Request sequence:

> POST /package/byRegEx HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n{"RegEx":"fuzzstring"}

<

Request: Put /package/{id}

Number of blocked dependent requests: 0

    +++ Combination 1 +++:

    Request sequence:

    > PUT /package/idef25cdb816 HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n   "Name":\n "fuzzstring"\n   ,\n   "Version":"1.2.3",\n   "ID":\n "123567192081501"\n   }\n ,\n "data":\n   {\n   "Content":"fuzzstring",\n "URL":"fuzzstring",\n   "debloat":true,\n   "JSProgram":"fuzzstring"\n   }\n }\r\n

    <

    +++ Combination 2 +++:

    Request sequence:

    > PUT /package/idbc5e96fcef HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n   "Name":\n "fuzzstring"\n   ,\n   "Version":"1.2.3",\n   "ID":\n "fuzzstring"\n   }\n ,\n "data":\n   {\n   "Content":"fuzzstring",\n "URL":"fuzzstring",\n   "debloat":true,\n   "JSProgram":"fuzzstring"\n   }\n }\r\n

    <

    +++ Combination 3 +++:

    Request sequence:

    > PUT /package/id9981d212de HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n   {\n   "Name":\n "fuzzstring"\n   ,\n   "Version":"fuzzstring",\n   "ID":\n "123567192081501"\n   }\n ,\n "data":\n   {\n   "Content":"fuzzstring",\n "URL":"fuzzstring",\n   "debloat":true,\n   "JSProgram":"fuzzstring"\n   }\n }\r\n

<

+++ Combination 4 +++:

Request sequence:

> PUT /package/id72a68ba1bb HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n {\n "Name":\n "fuzzstring"\n ,\n "Version":"fuzzstring",\n "ID":\n "fuzzstring"\n }\n ,\n "data":\n {\n "Content":"fuzzstring",\n "URL":"fuzzstring",\n "debloat":true,\n "JSProgram":"fuzzstring"\n }\n }\r\n

<

+++ Combination 5 +++:

Request sequence:

> PUT /package/idf7f033d94b HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n{\n "metadata":\n {\n "Name":\n "fuzzstring"\n ,\n "Version":"1.2.3",\n "ID":\n "123567192081501"\n }\n ,\n "data":\n {\n "Content":"fuzzstring",\n "URL":"fuzzstring",\n "debloat":true,\n "JSProgram":"fuzzstring"\n }\n }\r\n

<

Request: Get /package/byName/{name}

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /package/byName/Underscore HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\n\r\n

<

+++ Combination 2 +++:

Request sequence:

> GET /package/byName/Underscore HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 3 +++:

Request sequence:

> GET /package/byName/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5c\r\n\r\n

<

+++ Combination 4 +++:

Request sequence:

> GET /package/byName/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 5 +++:

Request sequence:

> GET /package/byName/Underscore HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5c\r\n\r\n

<

Request: Delete /package/{id}

Number of blocked dependent requests: 0

    +++ Combination 1 +++:

    Request sequence:

    > DELETE /package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost:
\r\nX-Authorization: bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4
gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5
c\r\n\r\n

    <

    +++ Combination 2 +++:

    Request sequence:

    > DELETE /package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost:
\r\nX-Authorization: fuzzstring\r\n\r\n

    <

    +++ Combination 3 +++:

    Request sequence:

    > DELETE /package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-
Authorization: bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4
gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5
c\r\n\r\n

    <

    +++ Combination 4 +++:

    Request sequence:

    > DELETE /package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-
Authorization: fuzzstring\r\n\r\n

    <

+++ Combination 5 +++:

Request sequence:

> DELETE /package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4 gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5 c\r\n\r\n

<

Request: Post /packages

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> POST /packages?offset=1 HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n[\n   {\n   "Version":\n "Exact (1.2.3)\nBounded range (1.2.3-2.1.0)\nCarat (^1.2.3)\nTilde (~1.2.0)"\n   ,\n "Name":\n   "fuzzstring"\n   }]\r\n

<

+++ Combination 2 +++:

Request sequence:

> POST /packages?offset=fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n[\n   {\n "Version":\n   "Exact (1.2.3)\nBounded range (1.2.3-2.1.0)\nCarat (^1.2.3)\nTilde (~1.2.0)"\n   ,\n   "Name":\n   "fuzzstring"\n   }]\r\n

<

+++ Combination 3 +++:

Request sequence:

> POST /packages HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\nContent-Type: application/json\r\n\r\n[{"Name":"fuzzstring"}]

<

Request: Get /package/{id}/cost

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /package/123567192081501/cost?dependency=true HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 2 +++:

Request sequence:

> GET /package/fuzzstring/cost?dependency=true HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 3 +++:

Request sequence:

> GET /package/123567192081501/cost HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 4 +++:

Request sequence:

> GET /package/fuzzstring/cost HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

Request: Get /package/{id}

Number of blocked dependent requests: 0

+++ Combination 1 +++:

Request sequence:

> GET /package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5c\r\n\r\n

<

+++ Combination 2 +++:

Request sequence:

> GET /package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 3 +++:

Request sequence:

> GET /package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5c\r\n\r\n

<

+++ Combination 4 +++:

Request sequence:

> GET /package/fuzzstring HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: fuzzstring\r\n\r\n

<

+++ Combination 5 +++:

Request sequence:

> GET /package/123567192081501 HTTP/1.1\r\nAccept: application/json\r\nHost: \r\nX-Authorization: bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJzdWIiOiIxMjM0NTY3ODkwIiwibmFtZSI6IkpvaG4gRG9lIiwiaWF0IjoxNTE2MjM5MDIyfQ.SflKxwRJSMeKKF2QT4fwpMeJf36POk6yJV_adQssw5c\r\n\r\n

<

misra22@eceprog3 ~/restler-fuzzer

$