

Charter

Identify capabilities and areas of potential instability of the “rest api todo list manager.”
Identify documented and undocumented “rest api todo list manager” capabilities.
For each capability create a script or small program to demonstrate the capability.
Exercise each capability identified with data typical to the intended use of the application.

For categories

Build

java -jar runTodoManagerRestAPI-1.5.5.jar

Area

Main functions and capabilities of typical scenarios

Environment

Windows XP, 1400x1050
Mac OS, Screen resolution 1400x1050

Start

9:45 am, 02/03/2023

Other Data

Written text attachment
Video of the session

Testers

Eric Zhang, 260989014, eric.zhang3@mail.mcgill.ca
Qing Han Zhang, 260973651, qinghan.zhang@mail.mcgill.ca

Session Breakdown

Total length 45 minutes

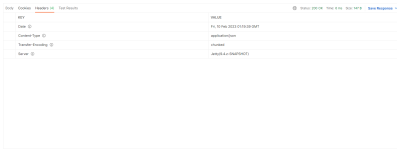
Test Notes

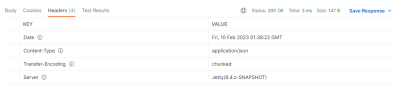
9:44

ran API on web browser

The following is the categories for the charters for column 3


1. Identify capabilities and areas of potential instability of the “rest api todo list manager”.
2. Identify documented and undocumented “rest api todo list manager” capabilities.
3. For each capability create a script or small program to demonstrate the capability.
4. Exercise each capability identified with data typical to the intended use of the application.

Date & Time	Tester Name	Curl Command	Command: Refer to 'ListOfCommands'	Charter Specifics	Note	Output
02/03/2023, 10:00 AM	Eric Zhang	GET	Command #1	Documented capability	Worked as expected: returns all the instances of category	<pre>{ "categories": [{ "id": "2", "title": "Home", "description": "" }, { "id": "1", "title": "Office", "description": "" }]}</pre>
02/03/2023, 10:03 AM	Eric Zhang	HEAD	Command #2	Documented capability, potential areas of instability	No output visible; however since the GET is working the HEAD must be working. Potential Bug? No output visible will assume no bug confirmed yet	
02/03/2023, 10:05 AM	Eric Zhang	POST	Command #3	Documented capability, typical data for application	Worked as expected: created a new category without an ID as documented; an ID of 4 was randomly assigned	<pre>{ "id": "4", "title": "Category title", "description": "This is my description" }</pre>
02/03/2023, 10:06 AM	Eric Zhang	POST	Command #4	Undocumented Capability, typical data for application	Not working as expected: we are not allowed to create a category with an ID	<pre>{ "errorMessages": ["Invalid Creation: Failed Validation: Not allowed to create with id"] }</pre>

02/03/2023, 10:07 AM	Eric Zhang	POST	Command #5	Undocumented Capability	Not working as expected: we are not allowed to create a category with no body	<pre>{ "errorMessages": ["title : field is mandatory"]}</pre>
02/03/2023, 10:07 AM	Eric Zhang	POST	Command #6	Documented capability, potential areas of instability	Able to create categories with the same title	<pre>{ "id": "5", "title": "New title", "description": "" }</pre>
02/03/2023, 10:07 AM	Eric Zhang	PUT	Command #7	Undocumented Capability	Nothing is happening even if the body is similar to what was put into post	NA
02/03/2023, 10:07 AM	Eric Zhang	DELETE	Command #8	Undocumented Capability	Nothing is happening as expected	NA
02/03/2023, 10:08 AM	Eric Zhang	GET	Command #9	Documented Capability	Worked as expected: retrieved the category 1 just created using the ID (1)	<pre>{ "categories": [{ "id": "1", "title": "Office", "description": "" }] }</pre>
02/03/2023, 10:09 AM	Eric Zhang	GET	Command #10	Documented Capability	ID 5 does not exist as a category in the system and because of that, it returns an error message “Could not find an instance with categories/5” which is expected and correct.	<pre>{ "errorMessages": ["Could not find an instance with categories/5"] }</pre>
02/03/2023, 10:10 AM	Eric Zhang	HEAD	Command #11	Documented Capability	No output visible; however since the GET is working the HEAD must be working	 <pre>Body Cookies Headers (1) Test Results Status: 200 OK Time: 0 ms Size: 167 B Save Response KEY VALUE Date Fri, 10 Feb 2023 01:36:22 GMT Content-Type application/json Transfer-Encoding chunked Server JARVIS/0.4.0-SNAPSHOT</pre>

02/03/2023, 10:11 AM		HEAD	Command #12	Undocumented Capability, potential areas of instability	Nothing is happening even with invalid ID	NA
02/03/2023, 10:12 AM	Eric Zhang	POST	Command #13	Documented Capability	Worked as expected: title and description was changed	{ "id": "1", "title": "New title", "description": "This is my new description" }
02/03/2023, 10:14 AM	Eric Zhang	POST	Command #14	Undocumented Capability, potential areas of instability, Script	Kept the same description as the last category which is and area of concern	{ "id": "4", "title": "New title", "description": "This is my description" }
02/03/2023, 10:15 AM	Eric Zhang	POST	Command #15	Documented Capability	Invalid ID will give an expected error	{ "errorMessages": ["No such category entity instance with GUID or ID 5 found"] }
02/03/2023, 10:16 AM	Eric Zhang	PUT	Command #16	Documented Capability, typical data for application, script	Worked as expected and updates the description unlike the POST one above	{ "id": "1", "title": "New Updated title", "description": "" }
02/03/2023, 10:18 AM	Eric Zhang	PUT	Command #17	Undocumented Capability, area of potential instability, script	Being able to update to a title that already exists	{ "id": "1", "title": "New title", "description": "updated description" }

02/03/2023, 10:22 AM	Eric Zhang	DELETE	Command #18	Documented Capability	Worked as expected as was able to delete item using ID	NA
02/03/2023, 10:28 AM	Eric Zhang	DELETE	Command #19	Undocumented Capability,	Deleting a categorythat has already been deleted will lead to an error message	<pre> { "errorMessages": ["Could not find any instances with categories/1"] } </pre>
02/03/2023, 10:30 AM	Eric Zhang	GET	Command #20	Undocumented capability, script	Gets all the projects in the categories	<pre> { "projects": [{ "id": "4", "title": "New project", "completed": "false", "active": "false", "description": "" }, { "id": "3", "title": "New project", "completed": "false", "active": "false", "description": "" }] } </pre>
02/03/2023, 10:32 AM	Eric Zhang	GET	Command #21	Documented Capability, typical data for application	Retrieves all the projects of a category of id 1	<pre> { "projects": [{ "id": "3", "title": "New project", "completed": "false", "active": "false", "description": "" }, </pre>

						<pre>{ "id": "2", "title": "New Updated title", "completed": "false", "active": "false", "description": "" }</pre>
02/03/2023, 10:34 AM	Eric Zhang	GET	Command #22	Script, Documented capability, area of potential instability	This should not happen because category 10 does not exist and should give an error	NA
02/03/2023, 10:36 AM	Eric Zhang	HEAD	Command #23	Documented Capability	No output visible; however since the GET is working the HEAD must be working	
02/03/2023, 10:39 AM	Eric Zhang	POST	Command #24	Documented Capability	creates an instance of a relationship named categories between projects with id 1 and the category in the body which in this case was also 1.	<pre>{ "id": "2", "title": "New project", "completed": "false", "active": "false", "description": "" }</pre>
02/03/2023, 10:40 AM	Eric Zhang	POST	Command #25	Documented Capability/script	Created a project in category with id 2 but made it into id 3 since id 2 already existed	<pre>{ "id": "3", "title": "New project", "completed": "false", "active": "false", "description": "" }</pre>
02/03/2023, 10:40 AM	Eric Zhang	POST	Command #26	Script, Documented capability, area of potential	Created a project in category 4 and gave the project id 4	<pre>{ "id": "4",</pre>

				instability		<pre>"title": "New project", "completed": "false", "active": "false", "description": "" }</pre>
02/03/2023, 10:40 AM	Eric Zhang	DELETE	Command #27	Documented Capability	delete the instance of the relationship named tasks between project and category using the :id	NA
02/03/2023, 10:40 AM	Eric Zhang	DELETE	Command #28	Undocumented Capability	delete the instance of the relationship named tasks between project and category the :id that has already been deleted gives an error	<pre>{ "errorMessages": ["Could not find any instances with categories/1/projects/1"] }</pre>
02/03/2023, 10:40 AM	Eric Zhang	GET	Command #29	Undocumented capability	Gathered all the todos of all the categories	<pre>{ "todos": [{ "id": "3", "title": "New todos", "doneStatus": "false", "description": "" }, { "id": "4", "title": "New todos", "doneStatus": "false", "description": "" }] }</pre>
02/03/2023, 10:41 AM	Eric Zhang	GET	Command #30	Documented capability, script, data, are of potential instability	Even if category 1 does not exist, it still outputs some todos for it which is wrong	<pre>{ "todos": [{ "id": "3", "title": "New todos", </pre>

						<pre>"doneStatus": "false", "description": "" }, { "id": "4", "title": "New todos", "doneStatus": "false", "description": "" }, { "id": "5", "title": "New todos", "doneStatus": "false", "description": "" }]</pre>										
02/03/2023, 10:42 AM	Eric Zhang	GET	Command #31	Documented Capability, Script	Worked as expected: and got the todos for the specific category	<pre>{ "todos": [{ "id": "3", "title": "New todos", "doneStatus": "false", "description": "" }, { "id": "4", "title": "New todos", "doneStatus": "false", "description": "" }] }</pre>										
02/03/2023, 10:42 AM	Eric Zhang	HEAD	Command #32	Documented Capability	Worked as expected:	<div>Body Cookies Headers (6) Test Results ⓘ Status: 200 OK Time: 4ms Size: 147 B Save Response ▾</div> <table><tr><th>KEY</th><th>VALUE</th></tr><tr><td>Date ⓘ</td><td>Fri, 10 Feb 2023 02:16:35 GMT</td></tr><tr><td>Content-Type ⓘ</td><td>application/json</td></tr><tr><td>Transfer-Encoding ⓘ</td><td>chunked</td></tr><tr><td>Server ⓘ</td><td>Jetty/9.4.z-SNAPSHOT</td></tr></table>	KEY	VALUE	Date ⓘ	Fri, 10 Feb 2023 02:16:35 GMT	Content-Type ⓘ	application/json	Transfer-Encoding ⓘ	chunked	Server ⓘ	Jetty/9.4.z-SNAPSHOT
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Transfer-Encoding ⓘ	chunked															
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02/03/2023,	Eric	POST	CommCommand	Documented	create an instance of a	NA										

10:43 AM	Zhang		#1and #33	Capability	relationship named todos between category instance :id and the todo instance represented by the id in the body of the message	
02/03/2023, 10:44 AM	Eric Zhang	POST	Command #34	Undocumented capability	If the category id does not exist, then it is expected that there is an error	{ "errorMessage": ["Could not find parent thing for relationship categories/1/todos"] }
02/03/2023, 10:45AM	Eric Zhang	DELETE	Command #35	Documented Capability	delete the instance of the relationship named todos between category and todo using the :id	NA

----- session end -----

Area of potential risk:

- Being able to create multiple categories with the same title
- Categories and projects can get confusing since they are not bidirectional
- Issues with HEAD where there is no response on multiple occasions
- Not throwing an error when GET of a project and todos with an invalid ID
- Not being able to delete all categories at once
- Getting todos for a specific category that would not exist would still return todos

New testing ideas:

- Testing out the null keyword
- Testing out ids that are not natural numbers
- Adding extra information in the body
- A lot was done in the undocumented part

