

## Charter

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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.

## Build

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`java -jar runTodoManagerRestAPI-1.5.5.jar`

## Area

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Capabilities and areas of potential instability (documented and undocumented) as well as tests using data typical to the intended use of the application.

## Environment

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Windows XP, 1400x1050

## Start

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10 am, 02/03/2023

## Other Data

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List of commands used in this session are found in the file ‘ListOfCommands.txt’

## Testers

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Danny Tu, 260985337, danny.tu@mail.mcgill.ca

## Session Breakdown

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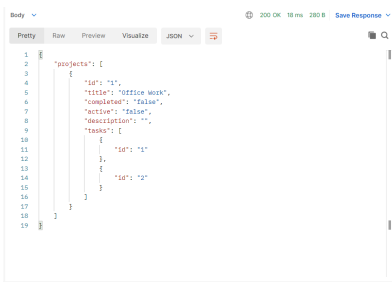
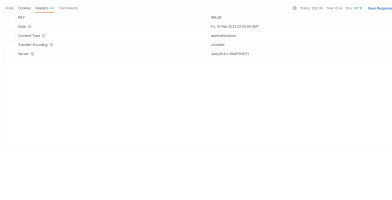
Total length 45 minutes

## Test Notes

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02/03/2023

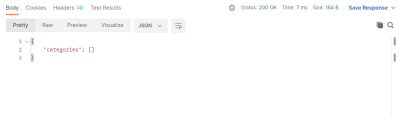
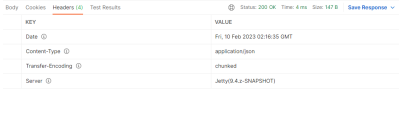
10:00 AM  
Ran the REST API on web browser

Date & Time	Tester Name	Curl Command	Command: Refer to 'ListOfCommands'	Charter Specifics	Note	Output
02/03/2023, 10:00 AM	Danny Tu	GET	Command #1	Documented capability	Worked as expected: all projects instances were retrieved	
02/03/2023, 10:03 AM	Danny Tu	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	Danny Tu	POST	Command #3	Documented capability, typical data for application	Worked as expected: created a new project without an ID as documented; an ID of f3 was randomly assigned	<pre>{   "id": "f3",   "title": "NewProject",   "completed": "false",   "active": "false",   "description": "429 Part A" }</pre>
02/03/2023, 10:06 AM	Danny Tu	POST	Command #4	Undocumented Capability, typical data for application	Not working as expected: we are not allowed to create a todo with an ID	<pre>{ "errorMessagees": [   "Invalid Creation: Failed Validation:   Not allowed to create with id"] }</pre>
02/03/2023, 10:08 AM	Danny Tu	GET	Command #5	Documented Capability	Worked as expected: retrieved the todo I just created using the ID (1)	<pre>{   "projects": [     {       "id": "1",       "title": "Office Work",       "completed": "false",       "active": "false",       "description": ""     }   ] }</pre>

						<pre>"tasks": [   {     "id": "1"   },   {     "id": "2"   } ]</pre>										
02/03/2023, 10:10 AM	Danny Tu	HEAD	Command #6	Documented Capability	No output visible; however since the GET is working the HEAD must be working	<div>Body   Cookies   Headers (1)   Test Results   10:10:10 AM   10:10:10 AM   10:10:10 AM   10:10:10 AM   Save Response</div> <table><tr><th>KEY</th><th>VALUE</th></tr><tr><td>Date (1)</td><td>Fri, 10 Feb 2023 01:06:02 GMT</td></tr><tr><td>Content-Type (1)</td><td>application/json</td></tr><tr><td>Transfer-Encoding (1)</td><td>chunked</td></tr><tr><td>Server (1)</td><td>Apache/2.4.18 (Ubuntu)</td></tr></table>	KEY	VALUE	Date (1)	Fri, 10 Feb 2023 01:06:02 GMT	Content-Type (1)	application/json	Transfer-Encoding (1)	chunked	Server (1)	Apache/2.4.18 (Ubuntu)
KEY	VALUE															
Date (1)	Fri, 10 Feb 2023 01:06:02 GMT															
Content-Type (1)	application/json															
Transfer-Encoding (1)	chunked															
Server (1)	Apache/2.4.18 (Ubuntu)															
02/03/2023, 10:12 AM	Danny Tu	POST	Command #7	Documented Capability	Worked as expected: title was changed was a project of id 1	<pre>{   "id": "1",   "title": "ChangeProject",   "completed": "false",   "active": "false",   "description": "429 Part Z",   "tasks": [     {       "id": "1"     },     {       "id": "2"     }   ] }</pre>										
02/03/2023, 10:16 AM	Danny Tu	PUT	Command #8	Documented Capability, typical data for application	Worked as expected	<pre>{   "id": "1",   "title": "ChangeProjectPUT",   "completed": "false",   "active": "false",   "description": "429 Part Z"</pre>										

						}
02/03/2023, 10:18 AM	Danny Tu	PUT	Command #9	Undocumented Capability, area of potential instability	Used duplicate key titles, therefore not working	{"errorMessages":["duplicate key: title"]}
02/03/2023, 10:22 AM	Danny Tu	DELETE	Command #10	Documented Capability	Worked as expected as was able to delete item using ID	NA
02/03/2023, 10:28 AM	Danny Tu	DELETE	Command #11	Undocumented Capability, area of potential instability	Deleting a project that has already been deleted will lead to an error message	{ "errorMessages": [ "Invalid GUID for 1 entity project" ] }
02/03/2023, 10:32 AM	Danny Tu	GET	Command #12	Documented Capability, typical data for application	Retrieves all the todos of a project of id 1	{ "todos": [ { "id": "1", "title": "scan paperwork", "doneStatus": "false", "description": "", "tasksof": [ { "id": "1" }] }, "categories": [ { "id": "1" }] }, { "id": "2", "title": "file paperwork", "doneStatus": "false", "description": "", "tasksof": [ { "id": "1" }] }

						<pre>    }     ]   } ] }</pre>										
02/03/2023, 10:30 AM	Danny Tu	HEAD	Command #13	Documented Capability	No output visible; however since the GET is working the HEAD must be working	<div>Body Cookies Headers (4) Test Results 200 OK 7ms 147 B Save Response</div> <table><tr><td>KEY</td><td>VALUE</td></tr><tr><td>Date (i)</td><td>Fri, 10 Feb 2023 01:58:51 GMT</td></tr><tr><td>Content-Type (i)</td><td>application/json</td></tr><tr><td>Transfer-Encoding (i)</td><td>chunked</td></tr><tr><td>Server (i)</td><td>Jetty(9.4.43-SNAPSHOT)</td></tr></table>	KEY	VALUE	Date (i)	Fri, 10 Feb 2023 01:58:51 GMT	Content-Type (i)	application/json	Transfer-Encoding (i)	chunked	Server (i)	Jetty(9.4.43-SNAPSHOT)
KEY	VALUE															
Date (i)	Fri, 10 Feb 2023 01:58:51 GMT															
Content-Type (i)	application/json															
Transfer-Encoding (i)	chunked															
Server (i)	Jetty(9.4.43-SNAPSHOT)															
02/03/2023, 10:33 AM	Danny Tu	POST	Command #14	Documented Capability	create an instance of a relationship named tasks between project instance :id and the todo instance represented by the id in the body of the message	<pre>{   "todos": [     {       "id": "1",       "title": "scan paperwork",       "doneStatus": "false",       "description": "",       "tasksof": [         {           "id": "1"         }       ],       "categories": [         {           "id": "1"         }       ],       "id": "2",       "title": "file paperwork",       "doneStatus": "false",       "description": "",       "tasksof": [         {           "id": "1"         }       ]     }   ] }</pre>										

						}
02/03/2023, 10:35 AM	Danny Tu	DELETE	Command #15	Documented Capability	delete the instance of the relationship named tasks between project and todo using the :id	NA
02/03/2023, 10:36 AM	Danny Tu	DELETE	Command #16	Undocumented Capability	delete the instance of the relationship named tasks between project and todo using the :id that has already been deleted gives an error	{ "errorMessage": [ "Could not find any instances with projects/1/tasks/1" ] }
02/03/2023, 10:37 AM	Danny Tu	GET	Command #17	Documented Capability	Worked as expected:	
02/03/2023, 10:38 AM	Danny Tu	HEAD	Command #18	Documented Capability	Worked as expected:	
02/03/2023, 10:39 AM	Danny Tu	POST	Command #19	Documented Capability	create an instance of a relationship named categories between project instance :id and the category instance represented by the id in the body of the message	NA
02/03/2023, 10:40AM	Danny Tu	DELETE	Command #20	Documented Capability	delete the instance of the relationship named categories between project and category using the :id	NA
02/03/2023, 10:41AM	Danny Tu	POST	Command #21	area of potential instability, typical data for application	BUG : /projects/1/tasks {id:null} as xml. worked but it should not have worked.	NA

Session End

Sessions findings:

-Most API functions work properly

Concerns:

XML file output could be wrong and bugged

Further testing ideas:

- Test out with null parameters
- Putting a very large ID number for the projects
- Negative IDs exist?
- Testing in different version of project