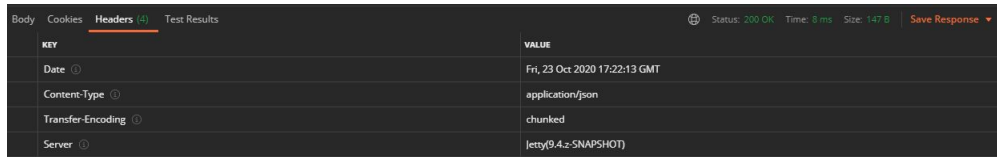



Test Charter 1

Time	Reporter	Type	Content	Screenshot
7:23 PM 10/22/2020	Daniel Wu	Session Reporters	Steven Luu - 260866167 (steven.luu@mail.mcgill.ca) Daniel Wu - 260863330 (daniel.wu@mail.mcgill.ca)	
7:23 PM 10/22/2020	Daniel Wu	Session Tester	Steven Luu	
7:24 PM 10/22/2020	Daniel Wu	Session Charter	Identify documented and undocumented “rest api todo list manager” capabilities. Exercise each capability identified with data typical to the intended use of the application.	
7:24 PM 10/22/2020	Daniel Wu	Setup	Windows 10 64-bit Postman v7.34.0	
7:24 PM 10/22/2020	Daniel Wu	Note	Start rest api todo list manager	
7:25 PM 10/22/2020	Daniel Wu	Command	GET todos http://localhost:4567/todos	

7:25 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "todos": [3 { 4 "id": "2", 5 "title": "file paperwork", 6 "doneStatus": "false", 7 "description": "", 8 "tasksof": [9 { 10 "id": "1" 11 } 12] 13 }, 14 { 15 "id": "1", 16 "title": "scan paperwork", 17 "doneStatus": "false", 18 "description": "", 19 "categories": [20 { 21 "id": "1" 22 } 23], 24 "tasksof": [25 { 26 "id": "1" 27 } 28] 29 } 30] 31 }</pre>
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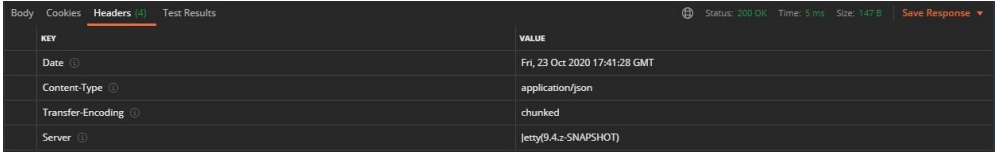
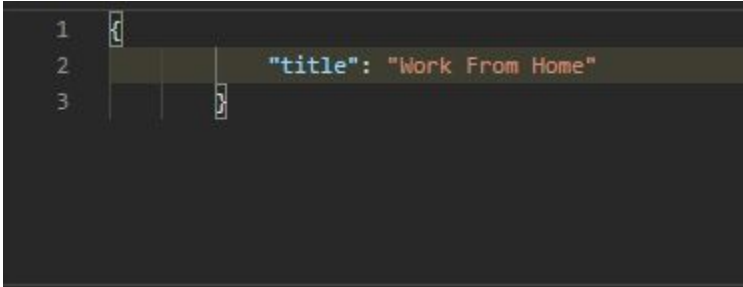
7:26 PM 10/22/2020	Daniel Wu	Command	HEAD todos http://localhost:4567/todos	
7:26 PM 10/22/2020	Daniel Wu	Result	Success	
7:26 PM 10/22/2020	Daniel Wu	Command	POST todos http://localhost:4567/todos	

7:27 PM 10/22/2020	Daniel Wu	Result	Success GET todos	<pre>1 { 2 "todos": [3 { 4 "id": "2", 5 "title": "file paperwork", 6 "doneStatus": "false", 7 "description": "", 8 "tasksof": [9 { 10 "id": "1" 11 } 12] 13 }, 14 { 15 "id": "8", 16 "title": "work work", 17 "doneStatus": "false", 18 "description": "", 19 "tasksof": [20 { 21 "id": "1" 22 } 23] 24 }, 25 { 26 "id": "1", 27 "title": "scan paperwork", 28 "doneStatus": "false", 29 "description": "", 30 "categories": [31 { 32 "id": "1" 33 } 34], 35 "tasksof": [36 { 37 "id": "1" 38 } 39] 40 } 41] 42 }</pre>
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7:28 PM 10/22/2020	Daniel Wu	Command	GET /todos/:id http://localhost:4567/todos/1											
7:28 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "todos": [3 { 4 "id": "1", 5 "title": "scan paperwork", 6 "doneStatus": "false", 7 "description": "", 8 "categories": [9 { 10 "id": "1" 11 } 12], 13 "tasksof": [14 { 15 "id": "1" 16 } 17] 18 } 19] 20 }</pre>										
7:29 PM 10/22/2020	Daniel Wu	Command	HEAD /todos/:id http://localhost:4567/todos/1											
7:30 PM 10/22/2020	Daniel Wu	Result	Success	<div>Body Cookies Headers (4) Test Results Status: 200 OK Time: 0 ms Size: 147 B Save Response</div> <table><tr><th>KEY</th><th>VALUE</th></tr><tr><td>Date</td><td>Fri, 23 Oct 2020 17:30:34 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, 23 Oct 2020 17:30:34 GMT	Content-Type	application/json	Transfer-Encoding	chunked	Server	Jetty(9.4.z-SNAPSHOT)
KEY	VALUE													
Date	Fri, 23 Oct 2020 17:30:34 GMT													
Content-Type	application/json													
Transfer-Encoding	chunked													
Server	Jetty(9.4.z-SNAPSHOT)													

7:31 PM 10/22/2020	Daniel Wu	Command	POST /todos/:id http://localhost:4567/todos/1	<pre>1 { 2 "doneStatus": true, 3 "description": "this is paper work" 4 }</pre>
7:31 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "id": "1", 3 "title": "scan paperwork", 4 "doneStatus": "true", 5 "description": "this is paper work", 6 "categories": [7 { 8 "id": "1" 9 } 10], 11 "tasksof": [12 { 13 "id": "1" 14 } 15] 16 }</pre>


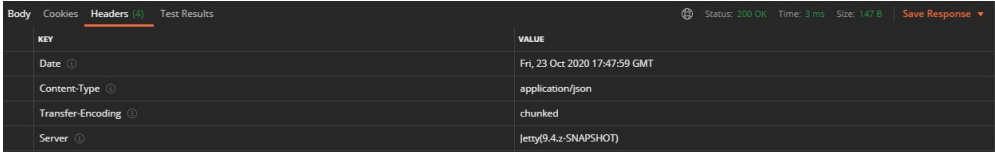
7:32 PM 10/22/2020	Daniel Wu	Command	PUT /todos/:id http://localhost:4567/todos/2	<pre> 1 { 2 "title": "paperwork file", 3 "description": "this is paper work" 4 }</pre>
7:33 PM 10/22/2020	Daniel Wu	Result	Failure Removed relationship between task id 2 and project id 1	<pre> 1 { 2 "id": "2", 3 "title": "paperwork file", 4 "doneStatus": "false", 5 "description": "this is paper work" 6 }</pre>
7:33 PM 10/22/2020	Daniel Wu	Command	DELETE /todos/:id http://localhost:4567/todos/2	
7:34 PM 10/22/2020	Daniel Wu	Result	Successfully deleted GET http://localhost:4567/todos/2	<pre> 1 { 2 "errorMessage": [3 "Could not find an instance with todos/2" 4] 5 }</pre>
7:34 PM 10/22/2020	Daniel Wu	Command	GET /todos/:id/categories http://localhost:4567/todos/2/categories	

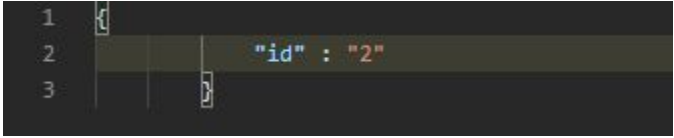
7:34 PM 10/22/2020	Daniel Wu	Result	Success	
7:35 PM 10/22/2020	Daniel Wu	Command	HEAD /todos/:id/categories http://localhost:4567/todos/2/categories	
7:35 PM 10/22/2020	Daniel Wu	Result	Success	
7:37 PM 10/22/2020	Daniel Wu	Command	POST /todos/:id/categories http://localhost:4567/todos/2/categories	

7:38 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "id": "3", 3 "title": "Work From Home", 4 "description": "" 5 }</pre>
7:39 PM 10/22/2020	Daniel Wu	Command	DELETE /todos/:id/categories/:id http://localhost:4567/todos/1/categories/3	
7:39 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "categories": [3 { 4 "id": "1", 5 "title": "Office", 6 "description": "" 7 } 8] 9 }</pre>
7:40 PM 10/22/2020	Daniel Wu	Command	GET /projects http://localhost:4567/projects	

7:41 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "projects": [3 { 4 "id": "1", 5 "title": "Office Work", 6 "completed": "false", 7 "active": "false", 8 "description": "", 9 "tasks": [10 { 11 "id": "8" 12 }, 13 { 14 "id": "1" 15 } 16] 17 } 18] 19 }</pre>										
7:42 PM 10/22/2020	Daniel Wu	Command	HEAD /projects http://localhost:4567/projects											
7:42 PM 10/22/2020	Daniel Wu	Result	Success	<div>Body Cookies Headers Test Results Status: 200 OK Time: 7 ms Size: 147 B Save Response</div> <table><tr><th>KEY</th><th>VALUE</th></tr><tr><td>Date</td><td>Fri, 23 Oct 2020 17:53:50 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, 23 Oct 2020 17:53:50 GMT	Content-Type	application/json	Transfer-Encoding	chunked	Server	Jetty(9.4.z-SNAPSHOT)
KEY	VALUE													
Date	Fri, 23 Oct 2020 17:53:50 GMT													
Content-Type	application/json													
Transfer-Encoding	chunked													
Server	Jetty(9.4.z-SNAPSHOT)													

7:42 PM 10/22/2020	Daniel Wu	Command	POST /projects http://localhost:4567/projects	<pre>1 { 2 "title": "Exploratory Testing Report" 3 }</pre>
7:43 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "id": "2", 3 "title": "Exploratory Testing Report", 4 "completed": "false", 5 "active": "false", 6 "description": "" 7 }</pre>
7:43 PM 10/22/2020	Daniel Wu	Command	GET /todos/:id/tasksof http://localhost:4567/todos/1/tasksof	

7:44 PM 10/22/2020	Daniel Wu	Result	Success	
7:44 PM 10/22/2020	Daniel Wu	Command	HEAD /todos/:id/tasksof http://localhost:4567/todos/1/tasksof	
7:44 PM 10/22/2020	Daniel Wu	Result	Success	

7:45 PM 10/22/2020	Daniel Wu	Command	POST /todos/:id/tasksof http://localhost:4567/todos/1/tasksof	
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7:45 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/todos/1/tasksof	<pre>1 { 2 "projects": [3 { 4 "id": "2", 5 "title": "Exploratory Testing Report", 6 "completed": "false", 7 "active": "false", 8 "description": "", 9 "tasks": [10 { 11 "id": "1" 12 } 13] 14 }, 15 { 16 "id": "1", 17 "title": "Office Work", 18 "completed": "false", 19 "active": "false", 20 "description": "", 21 "tasks": [22 { 23 "id": "8" 24 }, 25 { 26 "id": "1" 27 } 28] 29 } 30] 31 }</pre>
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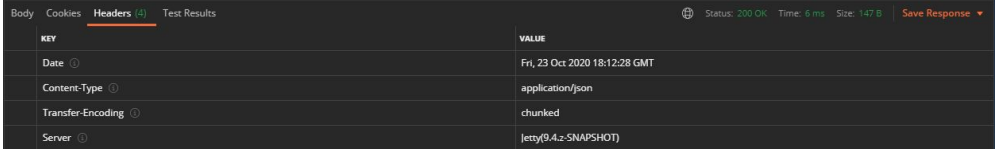
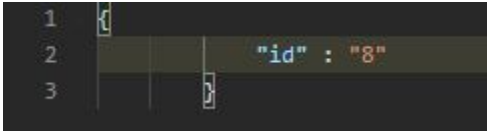
7:46 PM 10/22/2020	Daniel Wu	Command	DELETE /todos/:id/tasksof/:id http://localhost:4567/todos/1/tasksof/1	
7:46 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/todos/1/tasksof	<pre>1 { 2 "projects": [3 { 4 "id": "2", 5 "title": "Exploratory Testing Report", 6 "completed": "false", 7 "active": "false", 8 "description": "", 9 "tasks": [10 { 11 "id": "1" 12 } 13] 14 } 15] 16 }</pre>
7:47 PM 10/22/2020	Daniel Wu	Command	GET /projects/:id http://localhost:4567/projects/1	

7:47 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "projects": [3 { 4 "id": "1", 5 "title": "Office Work", 6 "completed": "false", 7 "active": "false", 8 "description": "", 9 "tasks": [10 { 11 "id": "8" 12 } 13] 14 } 15] 16 }</pre>										
7:47 PM 10/22/2020	Daniel Wu	Command	HEAD /projects/:id http://localhost:4567/projects/1											
7:48 PM 10/22/2020	Daniel Wu	Result	Success	<div>Body Cookies Headers (4) Test Results</div> <div>Status: 200 OK Time: 3 ms Size: 147 B Save Response</div> <table><tr><th>KEY</th><th>VALUE</th></tr><tr><td>Date</td><td>Fri, 23 Oct 2020 18:05:29 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, 23 Oct 2020 18:05:29 GMT	Content-Type	application/json	Transfer-Encoding	chunked	Server	Jetty(9.4.z-SNAPSHOT)
KEY	VALUE													
Date	Fri, 23 Oct 2020 18:05:29 GMT													
Content-Type	application/json													
Transfer-Encoding	chunked													
Server	Jetty(9.4.z-SNAPSHOT)													


7:48 PM 10/22/2020	Daniel Wu	Command	POST /projects/:id http://localhost:4567/projects/1	<pre>1 { 2 "title" : "Office Work pt.2" 3 }</pre>
7:48 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "id": "1", 3 "title": "Office Work pt.2", 4 "completed": "false", 5 "active": "false", 6 "description": "", 7 "tasks": [8 { 9 "id": "8" 10 } 11] 12 }</pre>
7:49 PM 10/22/2020	Daniel Wu	Command	PUT /projects/:id http://localhost:4567/projects/1	<pre>1 { 2 "description" : "This is Office Work" 3 }</pre>

7:49 PM 10/22/2020	Daniel Wu	Result	Failure Removed relationship between project id 1 and task id 1	<pre> 1 { 2 "id": "1", 3 "title": "", 4 "completed": "false", 5 "active": "false", 6 "description": "This is Office Work" 7 }</pre>
7:49 PM 10/22/2020	Daniel Wu	Command	DELETE /projects/:id http://localhost:4567/projects/1	
7:51 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/projects	<pre> { "projects": [{ "id": "2", "title": "Exploratory Testing Report", "completed": "false", "active": "false", "description": "", "tasks": [{ "id": "1" }] }] }</pre>

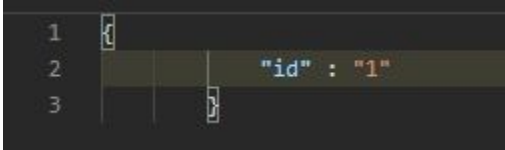
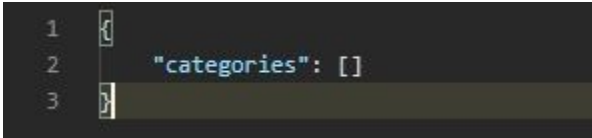
7:51 PM 10/22/2020	Daniel Wu	Command	GET /projects/:id/tasks http://localhost:4567/projects/2/tasks	
7:52 PM 10/22/2020	Daniel Wu	Result	Success	 <pre>{ "todos": [{ "id": "1", "title": "scan paperwork", "doneStatus": "true", "description": "this is paper work", "categories": [{ "id": "1" }], "tasksof": [{ "id": "2" }] }] }</pre>
7:52 PM 10/22/2020	Daniel Wu	Command	HEAD /projects/:id/tasks http://localhost:4567/projects/2/tasks	

7:52 PM 10/22/2020	Daniel Wu	Result	Success	 <p>A screenshot of a web browser's developer tools, specifically the 'Headers' tab. It shows the response headers for an HTTP request. The status is 200 OK, time is 6 ms, and size is 147 B. The headers listed are: Date (Fri, 23 Oct 2020 18:12:28 GMT), Content-Type (application/json), Transfer-Encoding (chunked), and Server (Jetty(9.4.z-SNAPSHOT)).</p>
7:55 PM 10/22/2020	Daniel Wu	Command	POST /projects/:id/tasks http://localhost:4567/projects/2/tasks	 <p>A screenshot of a REST client interface showing a JSON response. The response is: {"id": "8"}. The interface includes a list of requests on the left and the response body on the right.</p>

7:56 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/projects/2/tasks	<pre>[{"todos": [{"id": "8", "title": "work work", "doneStatus": "false", "description": "", "tasksof": [{"id": "2"}]}, {"id": "1", "title": "scan paperwork", "doneStatus": "true", "description": "this is paper work", "categories": [{"id": "1"}], "tasksof": [{"id": "2"}]}]</pre>
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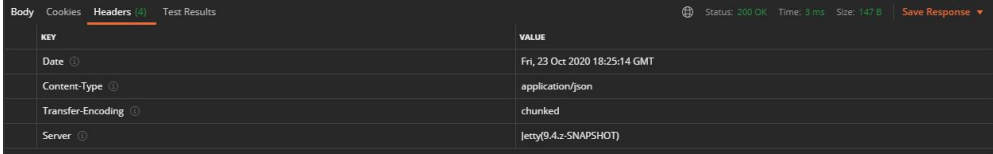
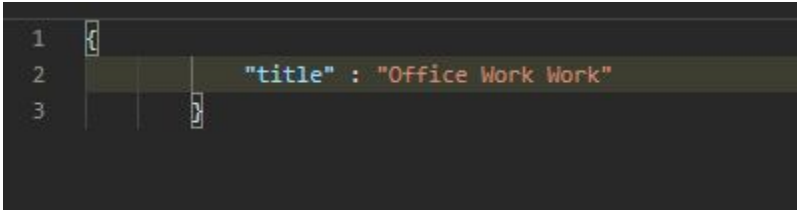
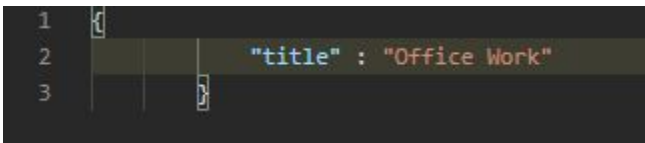
7:57 PM 10/22/2020	Daniel Wu	Command	DELETE /projects/:id/tasks/:id http://localhost:4567/projects/2/tasks/8	
7:57 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/projects/2/tasks	 <pre> { "todos": [{ "id": "1", "title": "scan paperwork", "doneStatus": "true", "description": "this is paper work", "categories": [{ "id": "1" }] }, { "tasksof": [{ "id": "2" }] }] } </pre>
7:58 PM 10/22/2020	Daniel Wu	Command	GET /projects/:id/categories http://localhost:4567/projects/2/categories	

7:59 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "categories": [] 3 }</pre>										
8:00 PM 10/22/2020	Daniel Wu	Command	HEAD /projects/:id/categories http://localhost:4567/projects/2/categories											
8:01 PM 10/22/2020	Daniel Wu	Result	Success	<div>Body Cookies Headers (4) Test Results Status: 200 OK Time: 3 ms Size: 147 B Save Response</div> <table><thead><tr><th>KEY</th><th>VALUE</th></tr></thead><tbody><tr><td>Date</td><td>Fri, 23 Oct 2020 18:18:58 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></tbody></table>	KEY	VALUE	Date	Fri, 23 Oct 2020 18:18:58 GMT	Content-Type	application/json	Transfer-Encoding	chunked	Server	Jetty(9.4.z-SNAPSHOT)
KEY	VALUE													
Date	Fri, 23 Oct 2020 18:18:58 GMT													
Content-Type	application/json													
Transfer-Encoding	chunked													
Server	Jetty(9.4.z-SNAPSHOT)													
8:01 PM 10/22/2020	Daniel Wu	Command	POST /projects/:id/categories http://localhost:4567/projects/2/categories	<pre>1 { 2 "id": "1" 3 }</pre>										
8:02 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/projects/2/categories	<pre>1 { 2 "categories": [3 { 4 "id": "1", 5 "title": "Office", 6 "description": "" 7 } 8] 9 }</pre>										

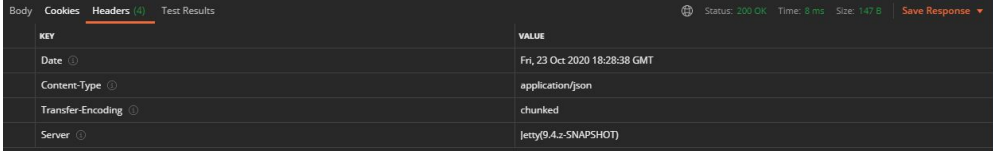
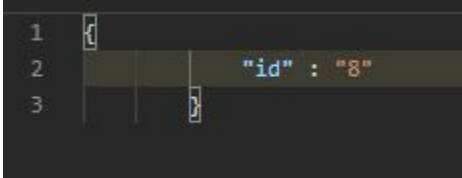

8:03 PM 10/22/2020	Daniel Wu	Command	DELETE /projects/:id/tasks/:id http://localhost:4567/projects/2/tasks/ 1	
8:03 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/projects/2/categ ories	
8:03 PM 10/22/2020	Daniel Wu	Command	GET categories http://localhost:4567/categories	

8:03 PM 10/22/2020	Daniel Wu	Result	Success	<pre>1 { 2 "categories": [3 { 4 "id": "2", 5 "title": "Home", 6 "description": "" 7 }, 8 { 9 "id": "1", 10 "title": "Office", 11 "description": "" 12 }, 13 { 14 "id": "3", 15 "title": "Work From Home", 16 "description": "" 17 } 18] 19 }</pre>										
8:03 PM 10/22/2020	Daniel Wu	Command	HEAD /categories http://localhost:4567/categories											
8:04 PM 10/22/2020	Daniel Wu	Result	Success	<div>Body Cookies Headers (4) Test Results Status: 200 OK Time: 3 ms Size: 147 B Save Response</div> <table><tr><th>KEY</th><th>VALUE</th></tr><tr><td>Date</td><td>Fri, 23 Oct 2020 18:23:29 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, 23 Oct 2020 18:23:29 GMT	Content-Type	application/json	Transfer-Encoding	chunked	Server	jetty(9.4.z-SNAPSHOT)
KEY	VALUE													
Date	Fri, 23 Oct 2020 18:23:29 GMT													
Content-Type	application/json													
Transfer-Encoding	chunked													
Server	jetty(9.4.z-SNAPSHOT)													

8:04 PM 10/22/2020	Daniel Wu	Command	POST /categories http://localhost:4567/categories	<pre> 1 { 2 "title": "Office Work pt. 3" 3 }</pre>
8:04 PM 10/22/2020	Daniel Wu	Result	Success	<pre> 1 { 2 "id": "4", 3 "title": "Office Work pt. 3", 4 "description": "" 5 }</pre>
8:05 PM 10/22/2020	Daniel Wu	Command	GET /categories/:id http://localhost:4567/categories/1	
8:06 PM 10/22/2020	Daniel Wu	Result	Success	<pre> 1 { 2 "categories": [3 { 4 "id": "1", 5 "title": "Office", 6 "description": "" 7 } 8] 9 }</pre>
8:07 PM 10/22/2020	Daniel Wu	Command	HEAD /categories/:id http://localhost:4567/categories/1	

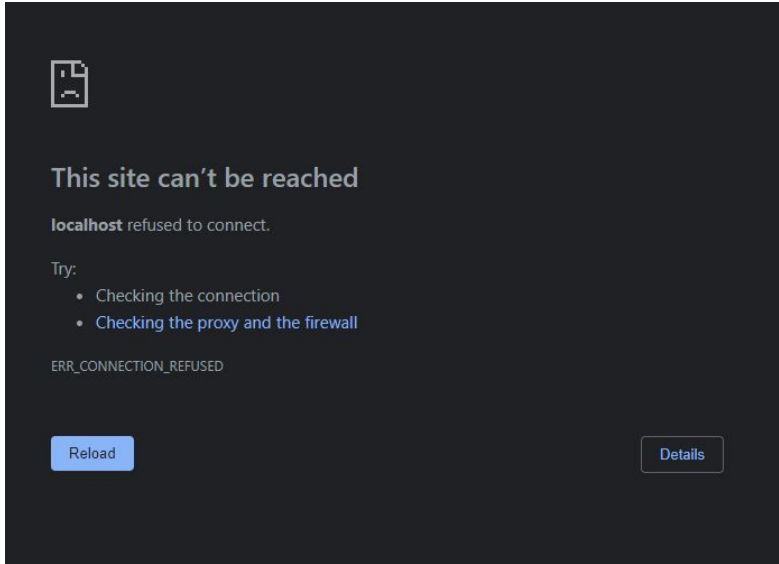
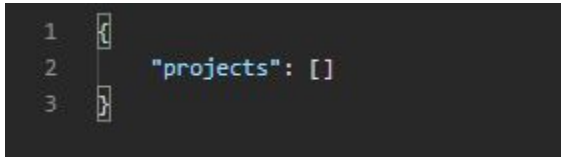
8:07 PM 10/22/2020	Daniel Wu	Result	Success	
8:07 PM 10/22/2020	Daniel Wu	Command	POST /categories/:id http://localhost:4567/categories/1	
8:08 PM 10/22/2020	Daniel Wu	Result	Success	
8:09 PM 10/22/2020	Daniel Wu	Command	PUT /categories/:id http://localhost:4567/categories/1	

8:09 PM 10/22/2020	Daniel Wu	Result	Success	<pre> 1 { 2 "id": "1", 3 "title": "Office Work", 4 "description": "" 5 }</pre>
8:10 PM 10/22/2020	Daniel Wu	Command	DELETE /categories/:id http://localhost:4567/categories/1	
8:11 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/categories/1	<pre> 1 { 2 "errorMessagees": [3 "Could not find an instance with categories/1" 4] 5 }</pre>
8:11 PM 10/22/2020	Daniel Wu	Command	GET /categories/:id/todos http://localhost:4567/categories/2/tod os	
8:12 PM 10/22/2020	Daniel Wu	Result	Success	<pre> 1 { 2 "todos": [] 3 }</pre>
8:12 PM 10/22/2020	Daniel Wu	Command	HEAD /categories/:id/todos http://localhost:4567/categories/2/tod os	

8:12 PM 10/22/2020	Daniel Wu	Result	Success	
8:14 PM 10/22/2020	Daniel Wu	Command	POST /categories/:id/todos http://localhost:4567/categories/2/todos	
8:14 PM 10/22/2020	Daniel Wu	Result	Success	
8:15 PM 10/22/2020	Daniel Wu	Command	DELETE /categories/:id/todos/:id http://localhost:4567/categories/2/todos/8	

8:16 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/categories/2/todos	
8:16 PM 10/22/2020	Daniel Wu	Command	GET /categories/:id/projects http://localhost:4567/categories/2/projects	
8:16 PM 10/22/2020	Daniel Wu	Result	Success	
8:16 PM 10/22/2020	Daniel Wu	Command	HEAD /categories/:id/projects http://localhost:4567/categories/2/projects	
8:16 PM 10/22/2020	Daniel Wu	Result	Success	
8:17 PM 10/22/2020	Daniel Wu	Command	POST /categories/:id/projects http://localhost:4567/categories/2/projects	

8:17 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/categories/2/projects	<pre>1 { 2 "projects": [3 { 4 "id": "2", 5 "title": "Exploratory Testing Report", 6 "completed": "false", 7 "active": "false", 8 "description": "", 9 "tasks": [10 { 11 "id": "1" 12 } 13] 14 } 15] 16 }</pre>
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8:17 PM 10/22/2020	Daniel Wu	Command	DELETE /categories/:id/projects/:id http://localhost:4567/categories/2/projects/2	
8:18 PM 10/22/2020	Daniel Wu	Result	Success GET http://localhost:4567/categories/2/projects	
8:18 PM 10/22/2020	Daniel Wu	Command	GET /shutdown	
8:18 PM 10/22/2020	Daniel Wu	Result	Success	

Summary of session findings

- All documented “rest api todo list manager” capabilities work as intended except for PUT requests.
- PUT and POST requests for updating either a model or a relationship between models should behave the same as per documentation.
- PUT resets non mandatory fields.

List of concerns identified in session

- IDs are not consistent, some ID seem to be skipped.
- PUT resets non mandatory fields.

List of new testing ideas identified in session

- Test why the IDs are not consistent by creating a script generating sample data.
- Test HTTP protocol speed by generating sample models