

Read_Me.pdf

Sunday, February 4, 2018 5:31 PM

To run this on your local host, clone the repo from below link:

<https://github.com/ps-vivek/Datastructures-WebService.git>

Tools/Env needed to run on local:

JDK 8

MAVEN

Any IDE that supports Java & Maven (Eclipse/IntelliJ etc..)

Postman(Optional), Project has in built swagger support to test the API

MongoDb

Ensure that MongoDB server is started on local before running this code.

API: <http://localhost:2800/ds/SLL/insert/appendToTail>

Swagger URL: <http://localhost:2800/swagger-ui.html#!/>

POST REQUEST

INPUT REQUEST -> JSON FORMAT

OUTPUT RESPONSE -> XML FORMAT

REQUIREMENT:

Create a Single linked list structure by adding elements to the end of the list without the usage of in-built list.

For the purpose of demonstrating this as a **spring boot webservice**, below exclusions are provided for implementing the requirement:

- 1) All the elements that needs to be appended to the linked list will be provided at one shot and a corresponding entry will be inserted for that given list in database.
Once the list is created with a given set of elements, it won't be retrieved back to add further elements. All the elements will be associated to a name that is always unique. So the request object will be as follows:


Request Object:

```
{
  "listElements": [

  ],
  "listName": ""
}
```

Both "listElements" and "listName" accept string as inputs. Both need to contain value for processing the request successfully.

<u>Request</u>	<u>Response</u>	<u>COMMENTS</u>
<pre>{ "listElements": ["1","2","3"], "listName": "" }</pre>	<pre><singleLinkedListResponse> <status>FAILURE</status> <description>Invalid empty request received as input</description> </singleLinkedListResponse></pre>	Empty list name provided

<pre>{ "listElements": ["1","2","3"], "listName": "John" }</pre>	<pre><singleLinkedListResponse> <status>SUCCESS</status> <description>SUCCESSFULLY APPENDED ELEMENT TO LINKED LIST</description> </singleLinkedListResponse></pre>	<p>List got created and one entry is created</p> 
<pre>"listElements": ["1","2","3"], "listName": "John" }</pre>	<pre><singleLinkedListResponse> <status>FAILURE</status> <description>GIVEN LIST NAME ALREADY EXISTS IN DB. PROVIDE UNIQUE LIST NAME</description> </singleLinkedListResponse></pre>	<p>Same input as above is inserted</p>
<pre>{ "listElements": ["1","2","3"], "listName": "John" }</pre>	<pre><singleLinkedListResponse> <status>FAILURE</status> <description>DUPLICATE LIST NAME ALREADY EXISTS IN DB. LIST NAME SHOULD ALWAYS BE UNIQUE.</description> </singleLinkedListResponse></pre>	<p>Assume that by accident duplicate entry is present in db. Error handling will be performed.</p>