

APPENDIX B

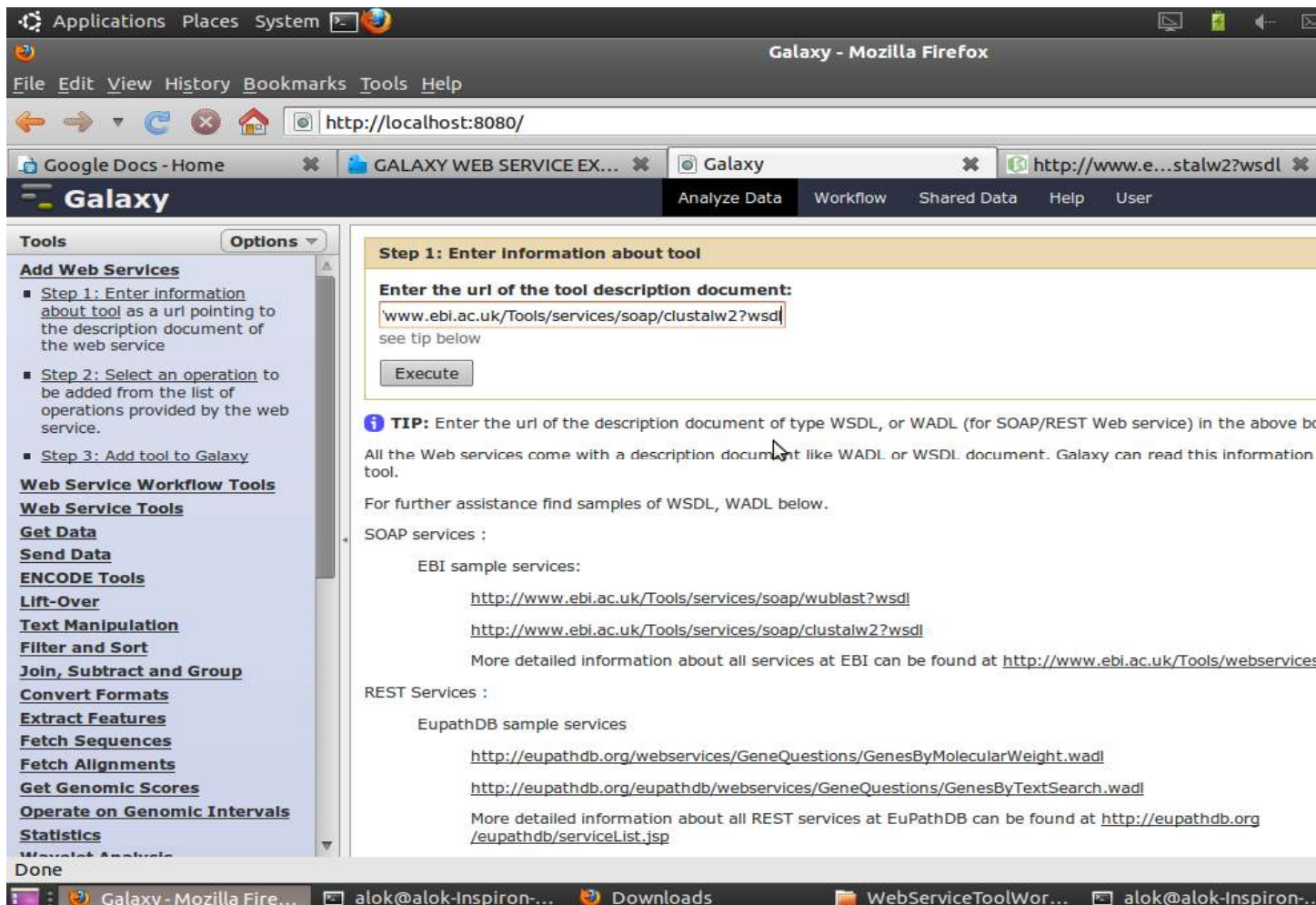
GALAXY WEB SERVICE EXTENSION USER'S GUIDE

This guide assumes that the user has installed the Galaxy Web Service extensions on their system. For installation instructions check the README.txt file in the installation folder. This document is intended to be a step by step guide explaining and demonstrating the functionality provided by Galaxy Web Service extensions. And walking the user through the process of adding a Web service (Web service operation) as a tool to Galaxy

Adding a Web Service as a tool:

Click on the “Add Web Services” tool which would appear as a first tool in the list of tools on the left side of your screen. As it can be seen from the Screenshot 1 below, Add web services comprises of three tools which make up for the three step process of adding a Web service operation as a tool.

1. Enter Information About the tool
2. Select an Operation
3. Add Tool to Galaxy



Screenshot - 1

Enter Information about the tool

On clicking the Step 1: Enter Information about the tool a text box will appear with a prompt to “Enter the url of the tool description document“.

Here enter the URL of the description document for the Web Service which can be of type WSDL or WADL depending on whether it is SOAP or REST Web service respectively.

For example SOAP web services as:

<http://www.ebi.ac.uk/Tools/services/soap/wublast?wsdl>

<http://www.ebi.ac.uk/Tools/services/soap/clustalw2?wsdl>

REST WebServices as:

<http://eupathdb.org/webservices/GeneQuestions/GenesByMolecularWeight.wadl>

<http://eupathdb.org/eupathdb/webservices/GeneQuestions/GenesByTextSearch.wadl>

Select an Operation

Now let us move onto Step 2 by clicking the Step 2: Select an Operation.

As it can be seen from the Screenshot 2, this step has three different inputs/parts as drop-downs.

a. *The previous step was:*

The drop-down holds all the previous steps present in history, and the step performed immediately before would be selected by default. This would be the step 1 we performed a minute ago. No action would be required in this case.

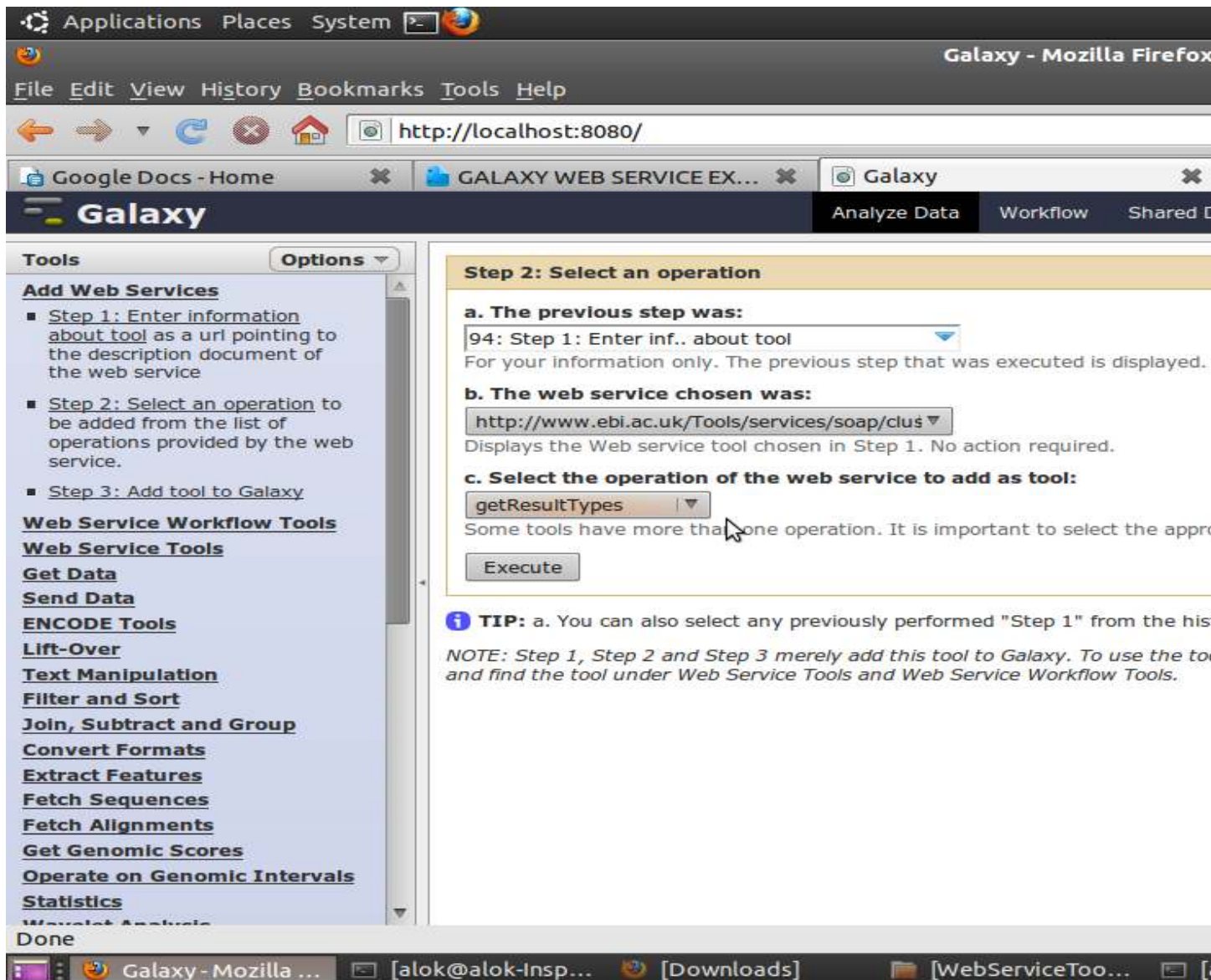
However the drop-down can be used to select a previous step in a case where we want to add multiple operations of a single Web service as tools and hence repetitive execution of step 1 could be avoided.

b. *The web service chosen was:*

The drop-down displays the Web service tool chosen in Step 1. No action is required.

c. *Select the operation of the web service to add as tool:*

From the drop-down list, select the operation you want to add as a tool. The drop-down list, is a list of all the operations that the Web service selected offers.



Screenshot 2

Add Tool to Galaxy

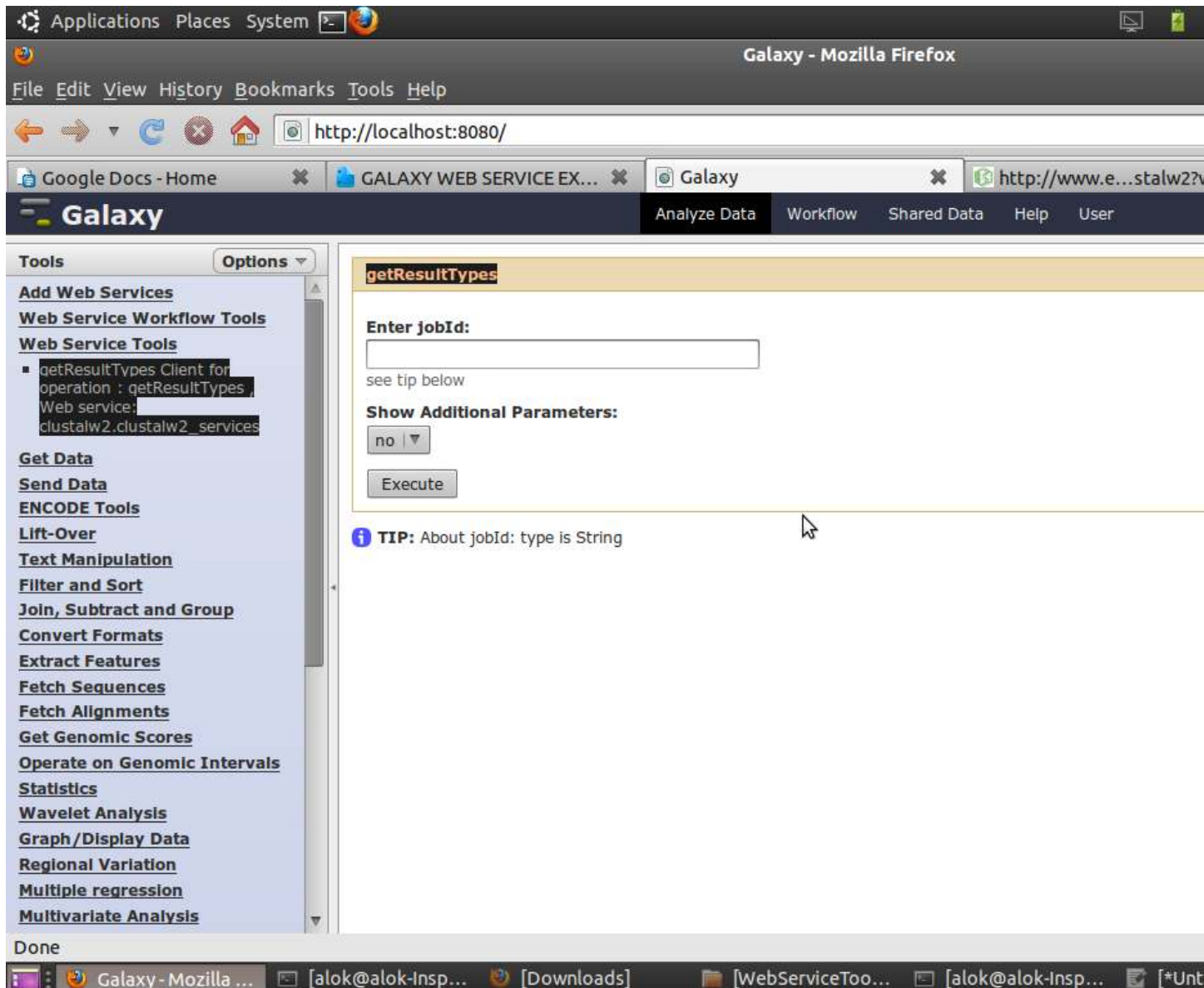
To complete the final step click on Step 3: Add tool to Galaxy. Just click on the execute Button to add the tool to Galaxy. After adding the tool, refresh the page for the changes to take effect. The newly added tool can be found under Web Service Tools and Web Service Workflow Tools.

And the selected Web services operation has been added as tool to Galaxy and ready for use.

Using the newly added tools (Web Service Operation as tools)

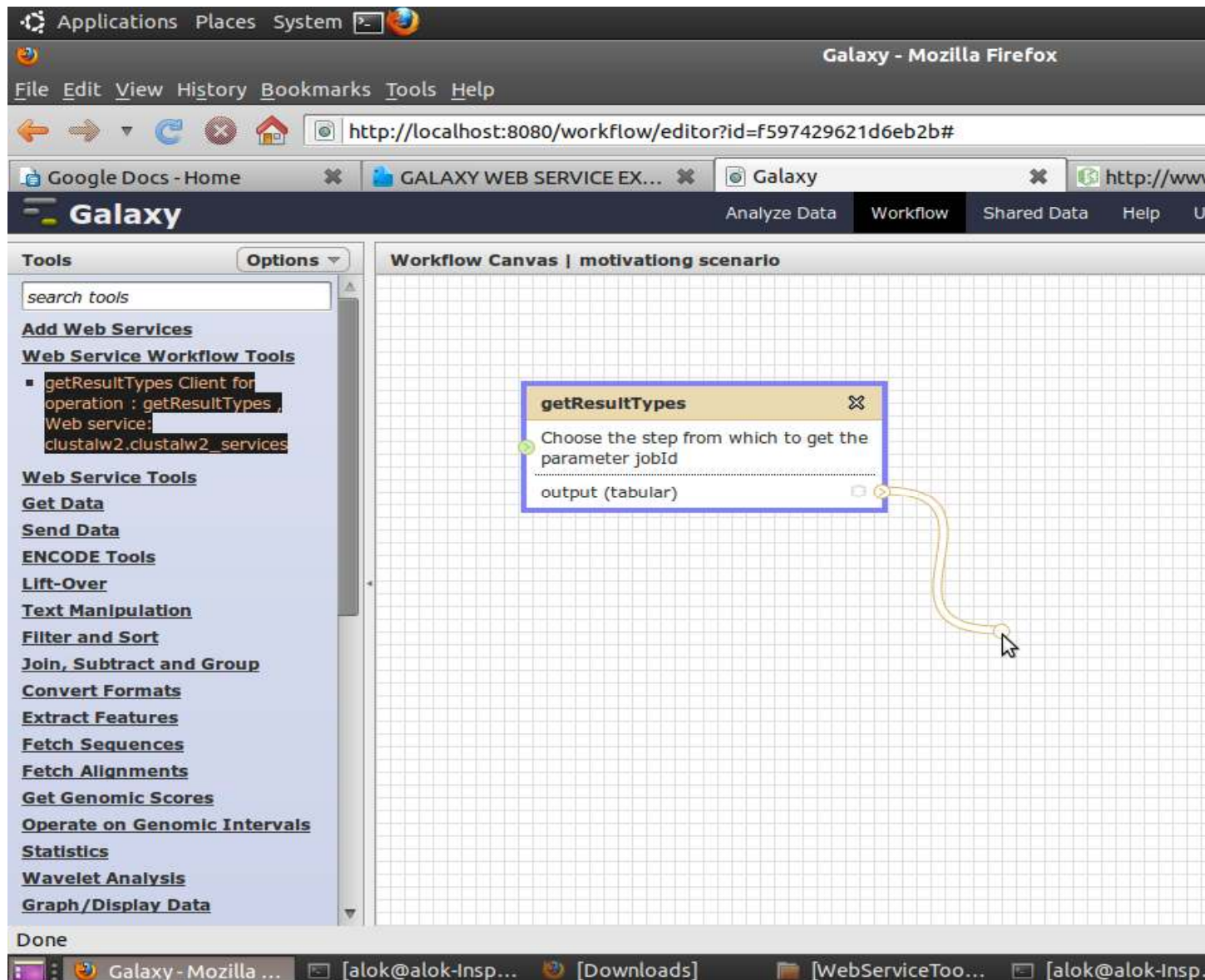
Standalone Tool: The Web service operation is added as a standalone tool under “Web Service Tools” in the tools menu on your left. As it can be seen from the screenshot 3 below you can click on the tool to use it as any other tool in Galaxy.

The tool by default prompts the user for only required parameters, the other parameters (optional) in this case take default values, specified by the Web Service. However if the user wants he can change the “Show additional parameters” to yes and provide values for the optional parameters as well.



Screenshot 3

Workflow Tool: In addition to the Web service operation being added as a standalone tool it is also added as a Workflow tool under “Web Service Workflow Tools” in the tools menu on your left. As you can see from screenshot 4 below this tool can be used to while creating Web service workflows.



Screenshot 4