Input methods	Description
WorflowExecution/insert	Allows for the insertion of seuquences of provenance documents, these can be bundles or lineage.
WorflowExecution/*<run_id>*/edit	Allows for the update of the user's description of a provenance bundle.
Output methods	**Description**
WorflowExecution(/*<run_id>* | *?<query_string1>*)	Extracts bundles documents by the *run_id* of a workflow execution or according to a query string for domain metadata value-ranges searches.
WorflowExecution/*<run_id>*/invocations(/*<invoc_id>*)	Extracts information about invocations associated with a specified workflow execution *run_id* or the details and the data entities produced by a specific one, given its *invoc_id*.
Data(/*<data_id>* | *?<query_string1>*)	Extracts the *Data* entities and the contained *DataGranules* by id or according to a query string for domain metadata value-ranges searches, or specifying the generating *Component*.
(1) WorflowExecution/*<run_id>*/export **(2) Data/*<data_id>*/export**	Export of provenance information in the W3C-PROV format. The S-PROV representation provided covers the whole workflow execution (1) or is restricted to a single data element (2) .
Data/*<data_id>*/hasAncestorWith*?<query_string1>*	Verifies the existence of at least one ancestor in the data dependency graph of a data entity that matches a set of metadata values.
(1) Data/*<data_id>*/derivedData **(2) Data/*<data_id>*/wasDerivedFrom**	Starting from a specific data entity, these methods allow the wide traversal navigation of the data dependency graph in two directions. Users can navigate through the data derived from a certain element (1) or backwards across the element's dependencies (2). The number of traversal steps can be configured for each request.
summaries/processes/*<run_id>*?*<query_string2>*	Offers a detailed overview of the distribution of the computation, showing data movements between the workflow *Components*, their instances and invocations across worker nodes. Users can specify the level of granularity in the query string (from components to invocations)
summaries/collaborative*?<query_string2>*	Extract information about the reuse and exchange of data between workflow executions, users and infrastructures, based on a query string with metadata values-range.
summaries/*<username>*/metadata	Returns a list of metadata terms that can be suggested to a user based on the relevance to her collection.

Table 5.1: S-ProvFlow API Methods
. The <query_string1> is of the form

username=<csv_username>&activities=<csv_username>&keys=<csv_metakeys>&maxvalues=<csv_metaval>&minvalues=<csv_metaval>&start=<num>