

## API Specification:

### Execution APIs:

#### ■Return\_existing\_arguments:

- Argument: algorithm\_name
- Return: no\_of\_compulsory\_args , no\_of\_optional\_args, name\_of\_all\_args  
{  
  "no\_of\_compulsory\_args":2  
  "no\_of\_optional\_args":3  
  "comp\_args":{  
    "input\_dir\_path":"inp-dir(sequence\_file\_format )"  
    "no\_of\_combiners":w(Integer )  
  }  
  "opt\_args":{  
    "no\_of\_reducers":r(Integer)  
    "no\_of\_mapper":m(Integer)  
    "no\_of\_secondary\_namenode":ns(Integer)  
  }  
}
- URL: [http://server/analytics/execute/return\\_args?  
algo\\_name=algo\\_name\\_value](http://server/analytics/execute/return_args?algo_name=algo_name_value)

#### ■Execute\_existing:

- Argument: algorithm\_name, <comp\_arg\_1>,....<comp\_arg\_n>,  
  <comp\_arg\_1\_value>,....<comp\_arg\_n\_value>,  
  <opt\_arg\_1>,....<opt\_arg\_n>,  
  <opt\_arg\_1\_value>,....<opt\_arg\_n\_value>
- Return: job\_id  
{  
  "job\_id":676  
}
- URL: [http://server/analytics/execute/algo?algo\\_name=algoname\\_value  
&input-dir=/home/user/Down/&w=3&r=2](http://server/analytics/execute/algo?algo_name=algoname_value&input-dir=/home/user/Down/&w=3&r=2)

#### ■Execute\_new\_script

- Argument: execution\_script\_location
- Return: (+ if successfully executed, 0 if failed)  
{  
  "script\_name":1  
}
- URL: [http://server/analytics/execute/script?  
execution\\_script\\_location=execution\\_script\\_path](http://server/analytics/execute/script?execution_script_location=execution_script_path)

### Addition APIs

#### ■Add\_new\_framework

- Argument: framework\_name, compressed\_file\_path, install\_script\_location
- Return: (+ if successfully added, 0 if failed)  
{  
  "framework":1  
}
- URL: <http://server/analytics/add/framework?>

[framework\\_name=framework name value&compressed file=compressed file path&install script location=install script path](#)

#### ■Add\_new\_algorithm

- Argument: framework\_name, algorithm\_name, algorithm\_file, no\_of\_algorithm\_comp\_args, no\_of\_algorithm\_opt\_args, <comp\_arg\_1>,....<comp\_arg\_n>, <opt\_arg\_1>,....<opt\_arg\_n>
- Return: (+ if successfully added, 0 if failed)  
{  
"algorithm\_name":<algorithm\_name\_value>  
}
- URL: [http://server/analytics/add/algo?framework\\_name=framework name value&algorithm name=algorithm name value&algorithm file=algorithm file path&algorithm run=algorithm run value&no of algorithm comp args=2&no of algorithm opt args=1&comp arg 1 name\(sequence file format\)=input dir path\(input dir\)&comp arg 2 name\(integer\)=no of combiners\(w\)&opt arg 1 name\(integer\)=no of reducers\(r\)](http://server/analytics/add/algo?framework_name=framework name value&algorithm name=algorithm name value&algorithm file=algorithm file path&algorithm run=algorithm run value&no of algorithm comp args=2&no of algorithm opt args=1&comp arg 1 name(sequence file format)=input dir path(input dir)&comp arg 2 name(integer)=no of combiners(w)&opt arg 1 name(integer)=no of reducers(r))

### List APIs

#### ■Framework\_list

- Argument: N/A
- Return: framework  
{  
1 : "Hadoop"  
2 : "Mahout"  
}
- URL: <http://server/analytics/list/framework>

#### ■Algorithm\_list

- Argument: N/A
- Return: algorithm  
{  
1 : "wordcount"  
2 : "kmeans"  
3 : "KNN"  
}
- URL: <http://server/analytics/list/algorithm>

#### ■Combined\_list

- Argument: N/A
- Return: framework\_name, algorithm\_name  
{  
"hadoop":  
{  
1 : "wordcount"  
2 : "kmeans"  
}  
"mahout":  
{

```

        1 : "KNN"
    }
}

```

- URL: <http://server/analytics/list/combined>

#### ■Algorithm\_list\_specific\_framework

- Argument: framework\_name
- Return: algorithm\_list

```

{
    1 : "wordcount"
    2 : "kmeans"
}

```

- URL: [http://server/analytics/list/specific?framework\\_name=hadoop](http://server/analytics/list/specific?framework_name=hadoop)

#### ■All\_algorithm\_file\_list

- Argument: N/A
- Return: framework\_name, algorithm\_file\_name

```

{
    "hadoop":
    {
        1 : "wordcount.jar"
        2 : "hadoop-examples.1.0.3.jar"
    }
    "R":
    {
        1 : "KNN.R"
    }
}

```

- URL: [http://server/analytics/list/all\\_algo\\_list](http://server/analytics/list/all_algo_list)

#### ■Algorithm\_list\_specific\_framework

- Argument: framework\_name
- Return: algorithm\_list

```

{
    1 : "wordcount.jar"
    2 : "hadoop-examples.1.0.3.jar"
}

```

- URL: [http://server/analytics/list/algo\\_files?framework\\_name=hadoop](http://server/analytics/list/algo_files?framework_name=hadoop)

## Job APIs

#### ■Job\_Status:

- Argument: job\_id
- Return: job\_status, output\_filename, output\_filelocation

```

{
    if(job is running)
    {
        "status": <running>
    }
    else
    {
        "output_filename":<outputfilename_value>
    }
}

```

```
        "output_filelocation":<output_filelocation_path>
    }
}
```

- URL: [http://server/analytics/status?job\\_id=676](http://server/analytics/status?job_id=676)

## Remove APIs

### ■Framework\_remove

- Argument: framework\_name, uninstall\_script\_path
  - Return: framework\_name(+ if successfully deleted, 0 if failed)
- ```
{
"framework_name":1
}
```
- URL: [http://server/analytics/remove/framework?framework\\_name=hadoop&uninstall\\_script\\_path=/usr/local/uninstall\\_hadoop.sh](http://server/analytics/remove/framework?framework_name=hadoop&uninstall_script_path=/usr/local/uninstall_hadoop.sh)

### ■Algorithm\_remove

- Argument: framework\_name, algorithm\_name, uninstall\_script\_path
  - Return: algorithm\_name(+ if successfully deleted, 0 if failed)
- ```
{
"algorithm_name":1
}
```
- URL: [http://server/analytics/remove/algo?framework\\_name=hadoop&algorithm\\_name=kmeans&uninstall\\_script\\_path=/usr/local/uninstall\\_kmeans.sh](http://server/analytics/remove/algo?framework_name=hadoop&algorithm_name=kmeans&uninstall_script_path=/usr/local/uninstall_kmeans.sh)