Templeton

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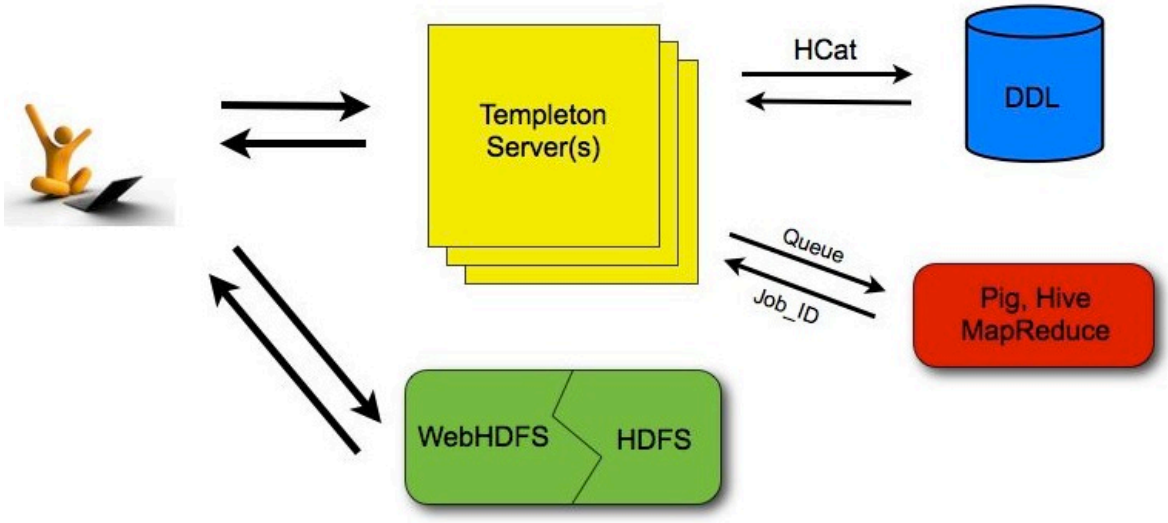
1.1 Templeton

1.1.1 Introduction

Templeton provides a REST-like web API for HCatalog and related Hadoop components. As shown in the figure below, developers make HTTP requests to access Hadoop MapReduce, Pig, Hive, and HCatalog DDL from within applications. Data and code used by Templeton is maintained in HDFS. HCatalog DDL commands are executed directly when requested. MapReduce, Pig, and Hive jobs are placed in queue by Templeton and can be monitored for progress or stopped as required. Developers specify a location in HDFS into which Templeton should place Pig, Hive, and MapReduce results.



1.1.2 URL format

Templeton resources are accessed using the following URL format:

`http://`*yourserver*`/templeton/v1/`*resource.format*

where "*yourserver*" is replaced with your server name, and "*resource.format*" is replaced by the Templeton resource name and output response format. Note that in Templeton version 0.1.0, JSON is the only supported response format.

For example, to check if the Templeton server is running you could access the following URL:

```
http://www.myserver.com/templeton/v1/status.json
```

1.1.3 Security

The current version of Templeton supports two types of security:

- Default security (without additional authentication)
- Authentication via Kerberos

1.1.3.1 Standard Parameters

Every Templeton resource can accept the following parameters to aid in authentication:

- user.name: The user name as a string. Only valid when using default security.
- SPNEGO credentials: When running with Kerberos authentication.

1.1.4 WebHDFS and Code Push

Data and code that are used by Templeton resources must first be placed in Hadoop. The current version of Templeton does not attempt to integrate or replace existing web interfaces that can perform this task, like WebHDFS. (Integration of these functions in some way, perhaps forwarding, is planned for a future release.) When placing files into HDFS is required you can use whatever method is most convienient for you.

1.1.5 Error Codes and Responses

The Templeton server returns the following HTTP status codes.

- **200 OK:** Success!
- **400 Bad Request:** The request was invalid.
- **401 Unauthorized:** Credentials were missing or incorrect.
- **404 Not Found:** The URI requested is invalid or the resource requested does not exist.
- **500 Internal Server Error:** We received an unexpected result.
- **503 Busy, please retry:** The server is busy.

Other data returned directly by Templeton is currently returned in JSON format. JSON responses are limited to 1MB in size. Responses over this limit must be stored into HDFS using provided options instead of being directly returned. If an HCatalog DDL command might return results greater than 1MB, it's suggested that a corresponding Hive request be executed instead.

1.1.6 Project Name

The Templeton project is named after the a character in the award-winning children's novel Charlotte's Web, by E. B. White. The novel's protagonist is a pig named Wilber. Templeton is a rat who helps Wilber by running errands and making deliveries.

1.2 Installation

1.2.1 Introduction

Templeton is deep in the middle of development and does not yet have a smooth install procedure. It is also designed to connect together services that are not normally connected and therefore has a complex configuration. As such, this version of Templeton should only be installed by expert developers.

1.2.2 Requirements

- Ant, version 1.8 or higher
- Tomcat, version 7.0 or higher
- Hadoop, version 0.20.205.0
- ZooKeeper. (Be sure to review and update the ZooKeeper related Templeton configuration as required.)
- HCatalog, To use the ddl resource, HCatalog must be installed in `/usr/local/hcat/bin/hcat`
- Hadoop Distributed Cache, To use the Hive, Pig, or hadoop/streaming resources, see instructions below for placing the required files in the Hadoop Distributed Cache.

1.2.3 Procedure

1. Ensure that the required related installations are in place.
2. Set the `TEMPLETON_HOME` environment variable to the base of the Templeton installation. This is used to find the Templeton configuration.
3. Review the Templeton configuration and update `templeton-site.xml` as required. Ensure that site specific component installation locations are accurate, especially the Hadoop configuration path. Configuration variables that use a filesystem path try to have reasonable defaults, but it's always safe to specify a full and complete path.
4. Start Tomcat.
5. Build and install the Templeton war file using `ant install-war` from `$TEMPLETON_HOME`. The Tomcat webapps directory must be writable.
6. Check that your local install works. Assuming that Tomcat is running on port 8080, the following command would give output similar to that shown.

```
% curl -i http://localhost:8080/templeton/v1/status.json
HTTP/1.1 200 OK
Server: Apache-Coyote/1.1
Content-Type: application/json
Transfer-Encoding: chunked
Date: Tue, 18 Oct 2011 19:35:17 GMT

{"status": "ok", "version": "v1"}
```

```
%
```

1.2.4 Authentication

To run any of the authenticated API calls, sudo must be setup properly.

For Development

1. Run Tomcat as yourself.
2. Make sure that you can sudo as yourself. For example, `sudo -u $USER date`

For Production

1. Create user runner with permission to run the required commands. In the sudoers file:

```
runner ALL=(%hadoop) NOPASSWD: command1[,command2, ...]
```

   allows runner to run the commands if they are owned by a user in the group hadoop.
2. Run Tomcat as runner.

1.2.5 Hadoop Distributed Cache

Templeton requires some files be accessible on the Hadoop distributed cache. For example, to avoid the installation of Pig and Hive everywhere on the cluster, Templeton gathers a version of Pig or Hive from the Hadoop distributed cache whenever those resources are invoked. To install the required components in the locations specificed by the default configuration, follow these steps:

1. Create `hive.tar`. If you installed HCatalog as noted above, this this is done as follows:

```
cd /usr/local/hcat
tar cf /tmp/hive.tar .
```

2. Place `hive.tar` into the cache.

```
hadoop fs -put /tmp/hive.tar /user/templeton/hive.tar
```

3. Install Pig locally, for example in `/usr/local/pig`.
4. Create `pig.tar`:

```
cd /usr/local/pig
tar cf /tmp/pig.tar .
```

5. Place `pig.tar` into the cache.

```
hadoop fs -put /tmp/pig.tar /user/templeton/pig.tar
```

6. Place `hadoop-streaming.jar` into the cache.

```
```

```
hadoop fs -put hadoop-streaming.jar /user/templeton/hadoop-streaming.jar
```

The location of these files in the cache, and the location of the installations inside the archives, can be specified using the following Templeton configuration variables. (See the Configuration documentation for more information on changing Templeton configuration parameters.)

Name	Default	Description
templeton.pig.archive	`hdfs:///user/templeton/pig.tar`	The path to the Pig archive.
templeton.pig.path	`pig.tar/bin/pig`	The path to the Pig executable.
templeton.hive.archive	`hdfs:///user/templeton/hive.tar`	The path to the Hive archive.
templeton.hive.path	`hive.tar/bin/hive`	The path to the Hive executable.
templeton.streaming.jar	`hdfs:///user/templeton/hadoop-streaming.jar`	The path to the Hadoop streaming jar file.

1.3 Configuration

The configuration for Templeton merges the normal Hadoop configuration with the Templeton specific variables. Because Templeton is designed to connect services that are not normally connected, the configuration is more complex than might be desirable.

The Templeton specific configuration is split into three layers:

1. **templeton-default.xml** - All the configuration variables that Templeton needs. This file sets the defaults that ship with Templeton and should only be changed by Templeton developers.
2. **templeton-dist.xml** - The (possibly empty) configuration file that can set variables for a particular distribution, such as an RPM file.
3. **templeton-site.xml** - The (possibly empty) configuration file in which the system administrator can set variables for their Hadoop cluster.

The configuration files are loaded in this order with later files overriding earlier ones.

To find the configuration files, Templeton first attempts to load a file from the `CLASSPATH` and then looks in the directory specified in the `TEMPLETON_HOME` environment variable.

Configuration files may access the special environment variable `env` for all environment variables. For example, the pig executable could be specified using:

```
${env.PIG_HOME}/bin/pig
```

Configuration variables that use a filesystem path try to have reasonable defaults. However, it's always safe to specify the full and complete path if there is any uncertainty.

1.3.1 Variables

Name	Default	Description
templeton.hadoop.config.dir	`$(env.HADOOP_CONFIG_DIR)`	The path to the Hadoop configuration.
templeton.jar	`${env.TEMPLETON_HOME}/ build/templeton/ templeton-0.1.0-dev.jar`	The path to the Templeton jar file.
templeton.libjars	`${env.TEMPLETON_HOME}/ build/ivy/lib/ templeton/ zookeeper-3.3.4.jar`	Jars to add to the classpath.
templeton.streaming.jar	`hdfs:///user/templeton/ hadoop-streaming.jar`	The hdfs path to the Hadoop streaming jar file.
templeton.hadoop	`${env.HADOOP_PREFIX}/ bin/hadoop`	The path to the Hadoop executable.
templeton.pig.archive	`hdfs:///user/templeton/ pig.tar`	The path to the Pig archive.
templeton.pig.path	`pig.tar/bin/pig`	The path to the Pig executable.
templeton.hcat	`${env.HCAT_PREFIX}/bin/ hcat`	The path to the Hcatalog executable.
templeton.hive.archive	`hdfs:///user/templeton/ hive.tar`	The path to the Hive archive.
templeton.hive.path	`hive.tar/bin/hive`	The path to the Hive executable.
templeton.hive.properties	`hive.metastore.local=fal hive.metastore.uris=thri localhost:9933, hive.metastore.sasl.enab`	Properties to set when running hive.
templeton.sudo	`/usr/bin/sudo`	The path to the sudo program.
templeton.exec.encoding	`UTF-8`	The encoding of the stdout and stderr data.

Name	Default	Description
templeton.exec.timeout	10000	How long in milliseconds a program is allowed to run on the Templeton box.
templeton.exec.max-procs	16	The maximum number of processes allowed to run at once.
templeton.exec.max-output-bytes	1048576	The maximum number of bytes from stdout or stderr stored in ram.
templeton.exec.envs	HADOOP_PREFIX,HADOOP_HOMI	The environment variables passed through to sudo.
templeton.zookeeper.hosts	127.0.0.1:2181	ZooKeeper servers, as comma separated host:port pairs
templeton.zookeeper.session-timeout	30000	ZooKeeper session timeout in milliseconds
templeton.callback.retry.interval	10000	How long to wait between callback retry attempts in milliseconds
templeton.callback.retry.attempts	5	How many times to retry the callback
templeton.zookeeper.cleanup.inter	43200000	The maximum delay between a thread's cleanup checks
templeton.zookeeper.cleanup.max	604800000	The maximum age of a templeton job

1.4 Reference

1.4.1 Templeton Resources

Resource	Description
status	Returns the Templeton server status.
ddl	Performs an HCatalog DDL command.
mapreduce/streaming	Creates and queues Hadoop streaming MapReduce jobs.
mapreduce/jar	Creates and queues standard Hadoop MapReduce jobs.

Resource	Description
pig	Creates and queues Pig jobs.
hive	Runs Hive queries and commands.
queue	Returns a list of all jobids registered for the user.
GET queue/:jobid	Returns the status of a job given its ID.
DELETE queue/:jobid	Kill a job given its ID.

1.4.2 GET status

1.4.2.1 Description

Returns the current status of the Templeton server. Useful for heartbeat monitoring.

1.4.2.2 URL

`http://`www.myserver.com`/templeton/v1/status.json`

1.4.2.3 Parameters

Only the standard parameters are accepted.

1.4.2.4 Results

Name	Description
status	"ok" if the Templeton server was contacted.
version	String containing the version number similar to "v1".

1.4.2.5 Example

Curl Command

```
% curl 'http://www.myserver.com/templeton/v1/status.json?user.name=charlotte'
```

JSON Output

```
{
 "status": "ok",
 "version": "v1"
}
```

1.4.3 POST ddl

1.4.3.1 Description

Performs an HCatalog DDL command. The command is executed immediately upon request. Responses are limited to 1MB. For requests which may return longer results consider using the Hive resource as an alternative.

1.4.3.2 URL

`http://www.myserver.com/templeton/v1/ddl.json`

1.4.3.3 Parameters

Name	Description	Required?	Default
exec	The HCatalog ddl string to execute	Required	None
group	The user group to use when creating a table	Optional	None
permissions	The permissions string to use when creating a table. The format is "`rwxrw-r-x`".	Optional	None

1.4.3.4 Results

Name	Description
stdout	A string containing the result HCatalog sent to standard out (possibly empty).
stderr	A string containing the result HCatalog sent to standard error (possibly empty).
exitcode	The exitcode HCatalog returned.

1.4.3.5 Example

Curl Command

```
% curl -d user.name=ctdean \
       -d 'exec=show tables;' \
       'http://www.myserver.com/templeton/v1/ddl.json'
```

JSON Output

```
{
 "stdout": "important_table
            my_other_table
            my_table
            my_table_2
            pokes
            ",
 "stderr": "WARNING: org.apache.hadoop.metrics.jvm.EventCounter is deprecated...
            Hive history file=/tmp/ctdean/hive_job_log_ctdean_201111111258_2117356679.txt
            OK
            Time taken: 1.202 seconds
            ",
 "exitcode": 0
}
```

1.4.4 POST mapreduce/streaming

1.4.4.1 Description

Create and queue an Hadoop streaming MapReduce job.

1.4.4.2 URL

`http://www.myserver.com/templeton/v1/mapreduce/streaming.json`

1.4.4.3 Parameters

Name	Description	Required?	Default
input	Location of the input data in Hadoop.	Required	None
output	Location in which to store the output data. If not specified, Templeton will store the output in a location that can be discovered using the queue resource.	Optional	See description
mapper	Location of the mapper program in Hadoop.	Required	None
reducer	Location of the reducer program in Hadoop.	Required	None
file	Add an HDFS file to the distributed cache.	Optional	None
define	Set an Hadoop configuration variable	Optional	None

Name	Description	Required?	Default
	using the syntax `define=NAME=VALUE`		
cmdenv	Set an environment variable using the syntax `cmdenv=NAME=VALUE`	Optional	None
arg	Set a program argument.	Optional	None
statusdir	A directory where Templeton will write the status of the Map Reduce job. If provided, it is the caller's responsibility to remove this directory when done.	Optional	None
callback	Define a URL to be called upon job completion. You may embed a specific job ID into this URL using `$jobId`. This tag will be replaced in the callback URL with this job's job ID.	Optional	None

1.4.4.4 Results

Name	Description
id	A string containing the job ID similar to "job_201110132141_0001".
info	A JSON object containing the information returned when the job was queued. See the Hadoop documentation (Class TaskController) for more information.

1.4.4.5 Example

Code and Data Setup

```
% cat mydata/file01 mydata/file02
Hello World Bye World
Hello Hadoop Goodbye Hadoop
```

```
% hadoop fs -put mydata/ .

% hadoop fs -ls mydata
Found 2 items
-rw-r--r--   1 ctdean supergroup         23 2011-11-11 13:29 /user/ctdean/mydata/file01
-rw-r--r--   1 ctdean supergroup         28 2011-11-11 13:29 /user/ctdean/mydata/file02
```

Curl Command

```
% curl -d user.name=ctdean \
       -d input=mydata \
       -d output=mycounts \
       -d mapper=/bin/cat \
       -d reducer="/usr/bin/wc -w" \
       'http://www.myserver.com/templeton/v1/mapreduce/streaming.json'
```

JSON Output

```
{
 "id": "job_201111111311_0008",
 "info": {
          "stdout": "packageJobJar: [] [/Users/ctdean/var/hadoop/hadoop-0.20.205.0/share/
hadoop/contrib/streaming/hadoop-streaming-0.20.205.0.jar...
                    templeton-job-id:job_201111111311_0008
                    ",
          "stderr": "11/11/11 13:26:43 WARN mapred.JobClient: Use GenericOptionsParser for
 parsing the arguments
                    11/11/11 13:26:43 INFO mapred.FileInputFormat: Total input paths to
 process : 2
                    ",
          "exitcode": 0
         }
}
```

Results

```
% hadoop fs -ls mycounts
Found 3 items
-rw-r--r--   1 ctdean supergroup          0 2011-11-11 13:27 /user/ctdean/mycounts/_SUCCESS
drwxr-xr-x   - ctdean supergroup          0 2011-11-11 13:26 /user/ctdean/mycounts/_logs
-rw-r--r--   1 ctdean supergroup         10 2011-11-11 13:27 /user/ctdean/mycounts/
part-00000

% hadoop fs -cat mycounts/part-00000
      8
```

1.4.5 POST mapreduce/jar

1.4.5.1 Description

Creates and queues a standard Hadoop MapReduce job.

1.4.5.2 URL

`http://www.myserver.com/templeton/v1/mapreduce/jar.json`

1.4.5.3 Parameters

Name	Description	Required?	Default
jar	Name of the jar file for Map Reduce to use.	Required	None
class	Name of the class for Map Reduce to use.	Required	None
libjars	Comma separated jar files to include in the classpath.	Optional	None
files	Comma separated files to be copied to the map reduce cluster	Optional	None
arg	Set a program argument.	Optional	None
define	Set an Hadoop configuration variable using the syntax `define=NAME=VALUE`	Optional	None
statusdir	A directory where Templeton will write the status of the Map Reduce job. If provided, it is the caller's responsibility to remove this directory when done.	Optional	None
callback	Define a URL to be called upon job completion. You may embed a specific job ID into this URL using `$jobId`. This tag will be replaced in the callback URL with this job's job ID.	Optional	None

1.4.5.4 Results

Name	Description
id	A string containing the job ID similar to "job_201110132141_0001".
info	A JSON object containing the information returned when the job was queued. See the Hadoop documentation (Class TaskController) for more information.

1.4.5.5 Example

Code and Data Setup

```
% hadoop fs -put wordcount.jar .
% hadoop fs -put transform.jar .

% hadoop fs -ls .
Found 2 items
-rw-r--r--   1 ctdean supergroup         23 2011-11-11 13:29 /user/ctdean/wordcount.jar
-rw-r--r--   1 ctdean supergroup         28 2011-11-11 13:29 /user/ctdean/transform.jar
```

Curl Command

```
% curl -d user.name=ctdean \
       -d jar=wordcount.jar \
       -d class=org.myorg.WordCount \
       -d libjars=transform.jar \
       -d arg=wordcount/input \
       -d arg=wordcount/output \
       'http://www.myserver.com/templeton/v1/mapreduce/jar.json'
```

JSON Output

```
{
 "id": "job_201111121211_0001",
 "info": {
          "stdout": "templeton-job-id:job_201111121211_0001
                    ",
          "stderr": "",
          "exitcode": 0
         }
}
```

1.4.6 POST pig

1.4.6.1 Description

Create and queue a Pig job.

1.4.6.2 URL

`http://www.myserver.com/templeton/v1/pig.json`

1.4.6.3 Parameters

Name	Description	Required?	Default
execute	String containing an entire, short pig program to run.	One of either "execcute" or "file" is required	None
file	HDFS file name of a pig program to run.	One of either "exec" or "file" is required	None
arg	Set a program argument.	Optional	None
files	Comma separated files to be copied to the map reduce cluster	Optional	None
statusdir	A directory where Templeton will write the status of the Pig job. If provided, it is the caller's responsibility to remove this directory when done.	Optional	None
callback	Define a URL to be called upon job completion. You may embed a specific job ID into this URL using `$jobId`. This tag will be replaced in the callback URL with this job's job ID.	Optional	None

1.4.6.4 Results

Name	Description
id	A string containing the job ID similar to "job_201110132141_0001".
info	A JSON object containing the information returned when the job was queued. See the Hadoop documentation (Class TaskController) for more information.

1.4.6.5 Example

Code and Data Setup

```
% cat id.pig
A = load 'passwd' using PigStorage(':');
B = foreach A generate $0 as id;
dump B;

% cat fake-passwd
ctdean:Chris Dean:secret
pauls:Paul Stolorz:good
carmas:Carlos Armas:evil
dra:Deirdre McClure:marvelous

% hadoop fs -put id.pig .
% hadoop fs -put fake-passwd passwd
```

Curl Command

```
% curl -d user.name=ctdean \
       -d file=id.pig \
       -d arg=-v \
       'http://www.myserver.com/templeton/v1/pig.json'
```

JSON Output

```
{
 "id": "job_201111101627_0018",
 "info": {
         "stdout": "templeton-job-id:job_201111101627_0018
                   ",
         "stderr": "",
         "exitcode": 0
        }
}
```

1.4.7 POST hive

1.4.7.1 Description

Runs a Hive query or set of commands.

1.4.7.2 URL

`http://www.myserver.com/templeton/v1/hive.json`

1.4.7.3 Parameters

Name	Description	Required?	Default
execute	String containing an entire, short hive program to run.	One of either "execute" or "file" is required	None
file	HDFS file name of a hive program to run.	One of either "exec" or "file" is required	None
define	Set a Hive configuration variable using the syntax `define=NAME=VALUE`.	Optional	None
statusdir	A directory where Templeton will write the status of the Hive job. If provided, it is the caller's responsibility to remove this directory when done.	Optional	None
callback	Define a URL to be called upon job completion. You may embed a specific job ID into this URL using `$jobId`. This tag will be replaced in the callback URL with this job's job ID.	Optional	None

1.4.7.4 Results

Name	Description
id	A string containing the job ID similar to "job_201110132141_0001".

Name	Description
info	A JSON object containing the information returned when the job was queued. See the Hadoop documentation (Class TaskController) for more information.

1.4.7.5 Example

Curl Command

```
% curl -d user.name=ctdean \
       -d execute="select+*+from+pokes;" \
       -d statusdir="pokes.output" \
       'http://www.myserver.com/templeton/v1/hive.json'
```

JSON Output

```
{
 "id": "job_201111111311_0005",
 "info": {
          "stdout": "templeton-job-id:job_201111111311_0005
                    ",
          "stderr": "",
          "exitcode": 0
         }
}
```

Results

```
% hadoop fs -ls pokes.output
Found 2 items
-rw-r--r--   1 ctdean supergroup        610 2011-11-11 13:22 /user/ctdean/pokes.output/
stderr
-rw-r--r--   1 ctdean supergroup         15 2011-11-11 13:22 /user/ctdean/pokes.output/
stdout

% hadoop fs -cat pokes.output/stdout
1       a
2       bb
3       ccc
```

1.4.8 GET queue

1.4.8.1 Description

Return a list of all job IDs registered to the user.

1.4.8.2 URL

`http://`www.myserver.com`/templeton/v1/queue.json`

1.4.8.3 Parameters

Only the standard parameters are accepted.

1.4.8.4 Results

Name	Description
ids	A list of all job IDs registered to the user.

1.4.8.5 Example

Curl Command

```
% curl 'http://www.myserver.com/templeton/v1/queue.json?user.name=ctdean'
```

JSON Output

```
{
 "job_201111111311_0008",
 "job_201111111311_0012"
}
```

1.4.9 GET queue/:jobid

1.4.9.1 Description

Check the status of a job and get related job information given its job ID. Substitute ":jobid" with the job ID received when the job was created.

1.4.9.2 URL

`http://`www.myserver.com`/templeton/v1/queue/`:jobid`.json`

1.4.9.3 Parameters

Name	Description	Required?	Default
:jobid	The job ID to check. This is the ID received when the job was created.	Required	None

1.4.9.4 Results

Name	Description
status	A JSON object containing the job status information. See the Hadoop documentation (Class JobStatus) for more information.
profile	A JSON object containing the job profile information. See the Hadoop documentation (Class JobProfile) for more information.
id	The job ID.
parentId	The parent job ID.
percentComplete	The job completion percentage, for example "75% complete".
exitValue	The job's exit value.
user	User name of the job creator.
callback	The callback URL, if any.
completed	A string representing completed status, for example "done".

1.4.9.5 Example

Curl Command

```
% curl 'http://www.myserver.com/templeton/v1/queue/job_201112212038_0003.json?
user.name=ctdean'
```

JSON Output

```
{
 "status": {
            "startTime": 1324529476131,
            "username": "ctdean",
            "jobID": {
                      "jtIdentifier": "201112212038",
                      "id": 4
                     },
            "jobACLs": {
                       },
            "schedulingInfo": "NA",
            "failureInfo": "NA",
            "jobId": "job_201112212038_0004",
            "jobPriority": "NORMAL",
            "runState": 2,
```

```
            "jobComplete": true
          },
 "profile": {
            "url": "http://localhost:50030/jobdetails.jsp?jobid=job_201112212038_0004",
            "jobID": {
                     "jtIdentifier": "201112212038",
                      "id": 4
                    },
            "user": "ctdean",
            "queueName": "default",
            "jobFile": "hdfs://localhost:9000/tmp/hadoop-ctdean/mapred/staging/
ctdean/.staging/job_201112212038_0004/job.xml",
            "jobName": "PigLatin:DefaultJobName",
            "jobId": "job_201112212038_0004"
          },
 "id": "job_201112212038_0004",
 "parentId": "job_201112212038_0003",
 "percentComplete": "100% complete",
 "exitValue": 0,
 "user": "ctdean",
 "callback": null,
 "completed": "done"
}
```


1.4.10 DELETE queue/:jobid

1.4.10.1 Description

Kill a job given its job ID. Substitute ":jobid" with the job ID received when the job was created.

1.4.10.2 URL

`http://`www.myserver.com`/templeton/v1/queue/`:jobid`.json`

1.4.10.3 Parameters

Name	Description	Required?	Default
:jobid	The job ID to delete. This is the ID received when the job job was created.	Required	None

1.4.10.4 Results

Name	Description
status	A JSON object containing the job status information. See the Hadoop documentation (Class JobStatus) for more information.

Name	Description
profile	A JSON object containing the job profile information. See the Hadoop documentation (Class JobProfile) for more information.
id	The job ID.
parentId	The parent job ID.
percentComplete	The job completion percentage, for example "75% complete".
exitValue	The job's exit value.
user	User name of the job creator.
callback	The callback URL, if any.
completed	A string representing completed status, for example "done".

1.4.10.5 Example

Curl Command

```
% curl -X DELETE 'http://www.myserver.com/templeton/v1/queue/job_201111111311_0009.json?
user.name=ctdean'
```

JSON Output

```
{
 "status": {
            "startTime": 1321047216471,
            "username": "ctdean",
            "jobID": {
                      "jtIdentifier": "201111111311",
                      "id": 9
                     },
            "jobACLs": {
                       },
            "schedulingInfo": "NA",
            "failureInfo": "NA",
            "jobId": "job_201111111311_0009",
            "jobPriority": "NORMAL",
            "runState": 1,
            "jobComplete": false
           },
 "profile": {
             "url": "http://localhost:50030/jobdetails.jsp?jobid=job_201111111311_0009",
             "user": "ctdean",
             "jobID": {
```

```
                       "jtIdentifier": "201111111311",
                       "id": 9
                      },
             "queueName": "default",
             "jobFile": "hdfs://localhost:9000/tmp/hadoop-ctdean/mapred/staging/
ctdean/.staging/job_201111111311_0009/job.xml",
             "jobName": "streamjob3322518350676530377.jar",
             "jobId": "job_201111111311_0009"
            }
 "id": "job_201111111311_0009",
 "parentId": "job_201111111311_0008",
 "percentComplete": "10% complete",
 "exitValue": 0,
 "user": "ctdean",
 "callback": null,
 "completed": "false"
}
```


Note: The job is not immediately deleted, therefore the information returned may not reflect deletion, as in our example. Use `GET queue/:jobid` to monitor the job and confirm that it is eventually deleted.

1.5 PDF