Ambari Shell

> ⚠ **This feature is available after the 1.6.1. version of Ambari**

The Ambari Shell's aim is to provide an interactive command line tool which supports: -

- all functionality available through Ambari web-app
- context aware command availability
- tab completion
- required/optional parameter support

Architecture

The shell is written is Java, and uses the Groovy bases Ambari REST client, and the Spring Shell framework.

Ambari-Shell is distributed as a single-file executable jar. The **uber jar**
is generated with the help of spring-boot-maven-plugin available at: http://docs.spring.io/spring-boot/docs/1.0.1.RELEASE/reference/htmlsingle/#executable-jar.

Spring-Boot also provides a helper to launch those jars: http://docs.spring.io/spring-boot/docs/1.0.1.RELEASE/reference/htmlsingle/#executable-jar-launching).

After compiling the project, the shell is ready to use (make sure you use Java 7 or above).

```
>> java -jar ambari-shell/target/ambari-shell-1.3.0-SNAPSHOT.jar --ambari.server=localhost --ambari.port=8080 --
ambari.user=admin --ambari.password=admin


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Welcome to Ambari Shell. For assistance press tab or use the `hint` command.

For the list of available commands type help

ambari-shell>help
* blueprint add - Add a new blueprint with either --url or --file
* blueprint defaults - Adds the default blueprints to Ambari
* blueprint list - Lists all known blueprints
* blueprint show - Shows the blueprint by its id
* cluster assign - Assign host to host group
* cluster autoAssign - Automatically assigns hosts to different host groups base on the provided strategy
* cluster build - Starts to build a cluster
* cluster create - Create a cluster based on current blueprint and assigned hosts
* cluster delete - Delete the cluster
* cluster preview - Shows the currently assigned hosts
* cluster reset - Clears the host - host group assignments
* configuration download - Downloads the desired configuration
* configuration modify - Modify the desired configuration
* configuration set - Sets the desired configuration
* configuration show - Prints the desired configuration
* debug off - Stops showing the URL of the API calls
* debug on - Shows the URL of the API calls
* exit - Exits the shell
* hello - Prints a simple elephant to the console
* help - List all commands usage
* hint - Shows some hints
* host components - Lists the components assigned to the selected host
* host focus - Sets the useHost to the specified host
* host list - Lists the available hosts
* quit - Exits the shell
* script - Parses the specified resource file and executes its commands
* services components - Lists all services with their components
* services list - Lists the available services
* services start - Starts a service/all the services
* services stop - Stops a service/all the running services
* tasks - Lists the Ambari tasks
* version - Displays shell version
```

Please note that all commands are context aware - and are available only when it makes sense.

For example the `cluster create` command is not available until a `blueprint` has not been added or selected.

A good approach is to use the `hint` command - as the Ambari UI, this will give you hints about the available commands and the flow of

creating or configuring a cluster. You can always use TAB for completion or available parameters.

```
ambari-shell>hello

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ambari-shell>blueprint defaults

  BLUEPRINT              STACK
  ---------------------  -------
  multi-node-hdfs-yarn   HDP:2.0
  single-node-hdfs-yarn  HDP:2.0

ambari-shell>cluster build --blueprint single-node-hdfs-yarn
ambari-shell>cluster assign --hostGroup host_group_1 --host server.ambari.com

        HOSTGROUP     HOST
  ------------  -----------------
  host_group_1  server.ambari.com

ambari-shell>cluster create
ambari-shell>tasks

  TASK                         STATUS
  ---------------------------  -------
  HISTORYSERVER INSTALL        QUEUED
  ZOOKEEPER_SERVER START       PENDING
  ZOOKEEPER_CLIENT INSTALL     PENDING
  HDFS_CLIENT INSTALL          PENDING
  HISTORYSERVER START          PENDING
  NODEMANAGER INSTALL          QUEUED
  NODEMANAGER START            PENDING
  ZOOKEEPER_SERVER INSTALL     QUEUED
  YARN_CLIENT INSTALL          PENDING
  NAMENODE INSTALL             QUEUED
  RESOURCEMANAGER INSTALL      QUEUED
  NAMENODE START               PENDING
  RESOURCEMANAGER START        PENDING
  DATANODE START               PENDING
  SECONDARY_NAMENODE START     PENDING
  DATANODE INSTALL             QUEUED
  MAPREDUCE2_CLIENT INSTALL    PENDING
  SECONDARY_NAMENODE INSTALL   QUEUED
```

Summary
To sum it up in less than two minutes watch this video: https://asciinema.org/a/9783