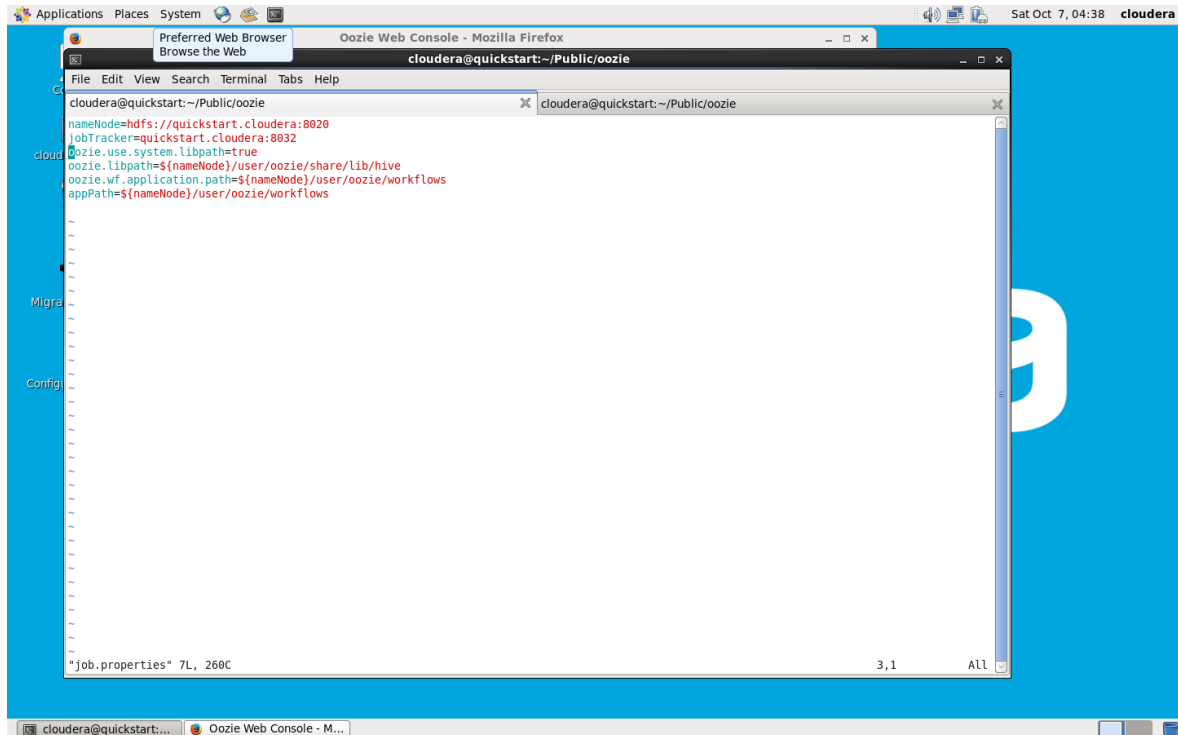


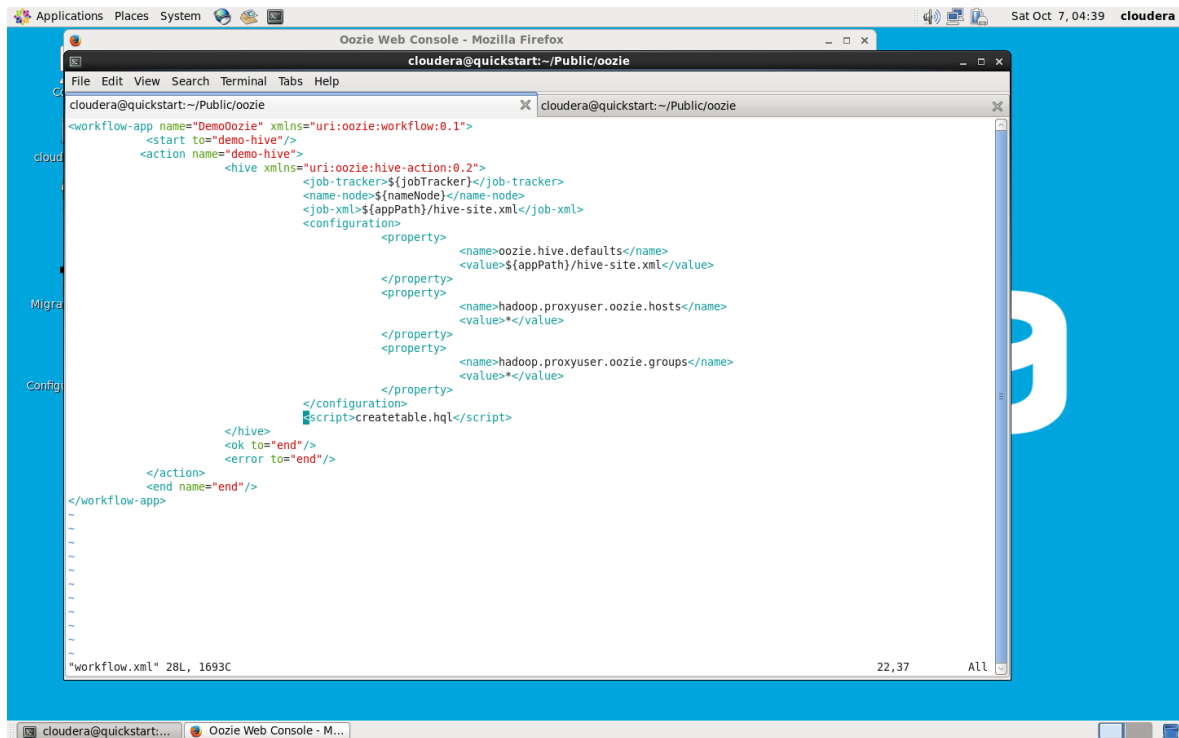
## Hive job scheduling using ooze:

1. To schedule hive job using ooze, we need to write hive-action.

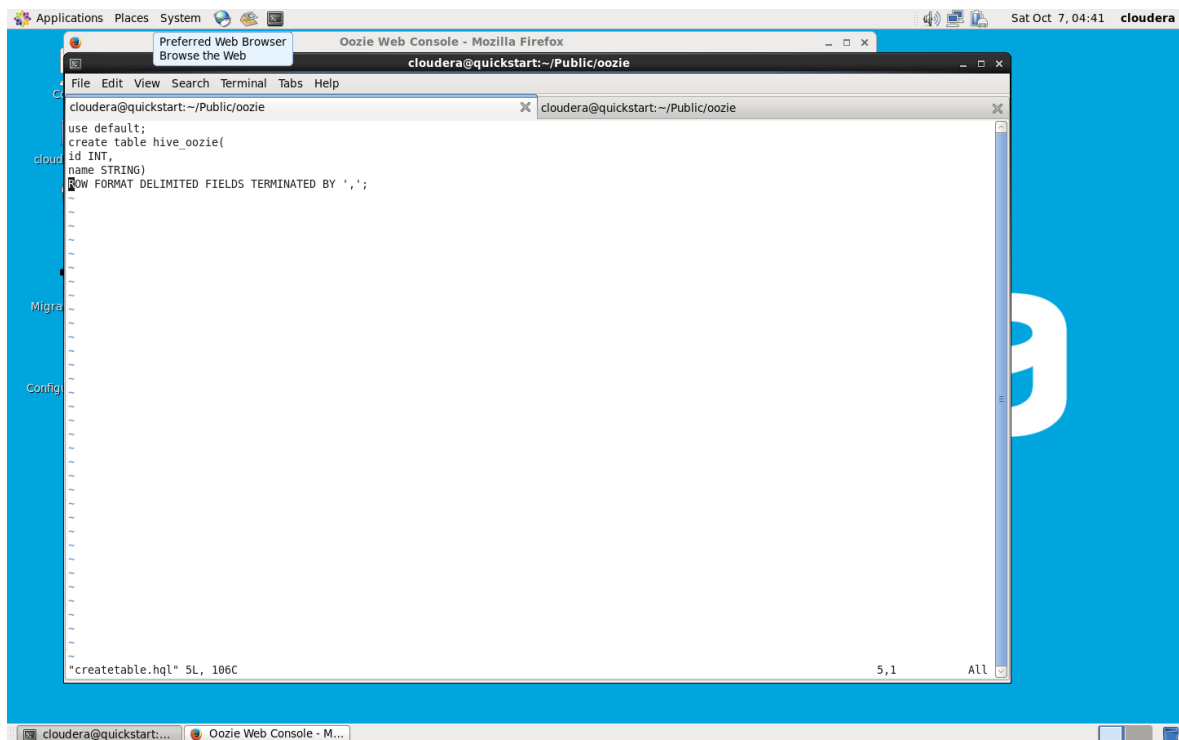
job.properties - file consists of variable definition of name node, job tracker, ooze application path, ooze workflow path, lib path.



2. workflow.xml - This file contains all the details of files, scripts required to schedule and run ooze job.



3. createtable.hql : hive script to create table in hive.



4. create directory (/user/oozie/workflows) in HDFS and copy workflow.xml, hive script and hive-site.xml files.

The screenshot shows a terminal window titled "Oozie Web Console - Mozilla Firefox" with the command prompt "cloudera@quickstart:~/Public/oozie". The user has created a workflow XML file, uploaded it to HDFS, and then executed the Oozie job. The output shows the job's progress, including the Hive CLI initialization and the execution of the "show tables" command. The terminal also displays the Oozie Web Console interface in the background.

```
cloudera@quickstart:~/Public/oozie
createtable.hql job.properties workflow.xml
[cloudera@quickstart oozie]$ vi workflow.xml
[cloudera@quickstart oozie]$ hadoop fs -put workflow.xml /user/oozie/workflows/
put: /user/oozie/workflows/workflow.xml: File exists
[cloudera@quickstart oozie]$ hadoop fs -rm /user/oozie/workflows/workflow.xml
Deleted /user/oozie/workflows/workflow.xml
[cloudera@quickstart oozie]$ hadoop fs -put workflow.xml /user/oozie/workflows/
[cloudera@quickstart oozie]$ hadoop fs -ls /user/oozie/workflows/
Found 3 items
-rw-r--r-- 1 cloudera supergroup      186 2017-10-06 05:17 /user/oozie/workflows/createtable.hql
-rw-r--r-- 1 cloudera supergroup    1937 2017-10-06 05:19 /user/oozie/workflows/hive-site.xml
-rw-r--r-- 1 cloudera supergroup    1693 2017-10-06 21:07 /user/oozie/workflows/workflow.xml
[cloudera@quickstart oozie]$ hive

Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
WARNING: Hive CLI is deprecated and migration to Beeline is recommended.
hive> use default;
> ;
OK
Time taken: 0.61 seconds
hive> show tables;
OK
Time taken: 0.4 seconds
hive> exit;
WARN: The method class org.apache.commons.logging.impl.SLF4JLogFactory#release() was invoked.
WARN: Please see http://www.slf4j.org/codes.html#release for an explanation.
[cloudera@quickstart oozie]$ vi job.properties
[cloudera@quickstart oozie]$ vi workflow.xml
[cloudera@quickstart oozie]$ hive

Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
WARNING: Hive CLI is deprecated and migration to Beeline is recommended.
hive> use default;
OK
Time taken: 0.54 seconds
hive> show tables;
OK
hive_oozie
Time taken: 0.338 seconds, Fetched: 1 row(s)
hive> exit;
```

## 5. Once done, run oozie job using below command:

The screenshot shows a terminal window titled "cloudera@quickstart:~/Public/oozie" with the command prompt "cloudera@quickstart:~/Public/oozie". The user has executed the Oozie job using the command "oozie job -oozie http://127.0.0.1:11000/oozie -config job.properties -run". The output shows the job's progress, including the Hive CLI initialization and the execution of the "show tables" command. The terminal also displays the Oozie Web Console interface in the background.

```
cloudera@quickstart:~/Public/oozie
2017-10-06 21:08:56,206 INFO WorkflowNotificationXCommand:520 - SERVER[quickstart.cloudera] USER[-] GROUP[-] TOKEN[-] APP[-] JOB[00000004-1710-06035608656-oozie-oozi-W] ACTION[00000004-171006035608656-oozie-oozi-W@demo-hive] No Notification URL is defined. Therefore nothing to notify for job 00000004-171006035608656-oozie-oozi-W@demo-hive
[cloudera@quickstart oozie]$ oozie job -oozie http://127.0.0.1:11000/oozie -config job.properties -run
job: 00000005-171006035608656-oozie-oozi-W
[cloudera@quickstart oozie]$ oozie job -oozie http://127.0.0.1:11000/oozie -log 00000005-171006035608656-oozie-oozi-W
2017-10-06 21:59:25,130 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@start: Start action [00000005-171006035608656-oozie-oozi-W@start: ] with user-retry state : userRetryCount [0], userRetryMax [0], userRetryInterval [10]
2017-10-06 21:59:25,131 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@start: ] [***00000005-171006035608656-oozie-oozi-W@start:***]Action status=DONE
2017-10-06 21:59:25,131 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@start: ] [***00000005-171006035608656-oozie-oozi-W@start:***]Action updated in DB!
2017-10-06 21:59:25,202 INFO WorkflowNotificationXCommand:520 - SERVER[quickstart.cloudera] USER[-] GROUP[-] TOKEN[-] APP[-] JOB[00000005-1710-06035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@start: ] No Notification URL is defined. Therefore nothing to notify for job 00000005-171006035608656-oozie-oozi-W@start:
2017-10-06 21:59:25,241 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@demo-hive] Start action [00000005-171006035608656-oozie-oozi-W@demo-hive] with user-retry state : userRetryCount [0], userRetryMax [0], userRetryInterval [10]
2017-10-06 21:59:28,287 INFO HiveActionExecutor:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@demo-hive] checking action, hadoop job ID [job_1507287275802_0003] status [RUNNING]
2017-10-06 21:59:28,291 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@demo-hive] [***00000005-171006035608656-oozie-oozi-W@demo-hive***]Action status=RUNNING
2017-10-06 21:59:28,292 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@demo-hive] [***00000005-171006035608656-oozie-oozi-W@demo-hive***]Action updated in DB!
2017-10-06 21:59:28,302 INFO WorkflowNotificationXCommand:520 - SERVER[quickstart.cloudera] USER[-] GROUP[-] TOKEN[-] APP[-] JOB[00000005-1710-06035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@demo-hive] No Notification URL is defined. Therefore nothing to notify for job 00000005-171006035608656-oozie-oozi-W@demo-hive
[cloudera@quickstart oozie]$ oozie job -oozie http://localhost:11000/oozie -log 00000005-171006035608656-oozie-oozi-W
2017-10-06 21:59:25,130 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@start: Start action [00000005-171006035608656-oozie-oozi-W@start: ] with user-retry state : userRetryCount [0], userRetryMax [0], userRetryInterval [10]
2017-10-06 21:59:25,131 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[00000005-171006035608656-oozie-oozi-W] ACTION[00000005-171006035608656-oozie-oozi-W@start: ] [***00000005-171006035608656-oozie-oozi-W@start:***]Action status=DONE
```

## 6. One completed, check status of the job using :

Applications Places System Oozie Web Console - Mozilla Firefox cloudera@quickstart:~/Public/oozie

```
cloudera@quickstart:~/Public/oozie
-171006035608656-oozie-oozi-W] ACTION[0000005-171006035608656-oozie-oozi-W@end] [***0000005-171006035608656-oozie-oozi-W@end***]Action status=
DONE
2017-10-06 21:59:58,867 INFO ActionStartXCommand:520 - SERVER[quickstart.cloudera] USER[cloudera] GROUP[-] TOKEN[-] APP[DemoOozie] JOB[0000005-171006035608656-oozie-oozi-W] ACTION[0000005-171006035608656-oozie-oozi-W@end] [***0000005-171006035608656-oozie-oozi-W@end***]Action updated
in DB!
2017-10-06 21:59:58,979 INFO WorkflowNotificationXCommand:520 - SERVER[quickstart.cloudera] USER[-] GROUP[-] TOKEN[-] APP[-] JOB[0000005-171006035608656-oozie-oozi-W] ACTION[0000005-171006035608656-oozie-oozi-W@end] No Notification URL is defined. Therefore nothing to notify for job
0000005-171006035608656-oozie-oozi-W@end
2017-10-06 21:59:58,979 INFO WorkflowNotificationXCommand:520 - SERVER[quickstart.cloudera] USER[-] GROUP[-] TOKEN[-] APP[-] JOB[0000005-171006035608656-oozie-oozi-W] ACTION[0000005-171006035608656-oozie-oozi-W@end] No Notification URL is defined. Therefore nothing to notify for job
0000005-171006035608656-oozie-oozi-W@demo-hive
[cloudera@quickstart oozie]$ oozie job -oozie http://localhost:11000/oozie -info 0000005-171006035608656-oozie-oozi-W
Job ID : 0000005-171006035608656-oozie-oozi-W
-----
Workflow Name : DemoOozie
App Path      : hdfs://quickstart.cloudera:8020/user/oozie/workflows
Status       : SUCCEEDED
Run          : 0
User        : cloudera
Group       : -
Created     : 2017-10-07 04:59 GMT
Started    : 2017-10-07 04:59 GMT
Last Modified : 2017-10-07 04:59 GMT
Ended      : 2017-10-07 04:59 GMT
CoordAction ID : -

Actions
-----
ID                                     Status  Ext ID  Ext Status  Err Code
-----
0000005-171006035608656-oozie-oozi-W@start:  OK      -      OK          -
0000005-171006035608656-oozie-oozi-W@demo-hive  OK      job_1507287275802_0003  SUCCEEDED  -
0000005-171006035608656-oozie-oozi-W@end      OK      -      OK          -
-----

[cloudera@quickstart oozie]$
```

Applications Places System cloudera@quickstart:~/Public/oozie

```
cloudera@quickstart:~/Public/oozie
[cloudera@quickstart oozie]$ hive
Logging initialized using configuration in file:/etc/hive/conf.dist/hive-log4j.properties
WARNING: Hive CLI is deprecated and migration to Beeline is recommended.
hive> use default;
OK
Time taken: 0.463 seconds
hive> show tables;
OK
hive oozie
Time taken: 0.29 seconds, Fetched: 1 row(s)
hive>
```