Cloud Computing Assignment 4 Report

PES1UG19CS592

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1 Installing Zookeeper


```
pes1ug19cs592@LAPTOP-3NK0JKVJ:/opt/apache-zookeeper-3.8.0-bin/bin$ ./zkServer.sh start
/usr/bin/java
ZooKeeper JMX enabled by default
Using config: /opt/apache-zookeeper-3.8.0-bin/bin/../conf/zoo.cfg
Starting zookeeper ... STARTED
```

Figure 1: Server having started.

2 Zookeeper CLI


```
[zk: localhost:2181(CONNECTED) 3] ls /
[pes1ug19cs592_eph, pes1ug19cs592_seq0000000000, zookeeper]
[zk: localhost:2181(CONNECTED) 4]
```

Figure 2: Listing of created ZNodes


```
[zk: localhost:2181(CONNECTED) 0] ls /
[pes1ug19cs592_seq0000000000, zookeeper]
[zk: localhost:2181(CONNECTED) 1]
```

Figure 3: Listing of deleted ephemeral node.

```
[zk: localhost:2181(CONNECTED) 1] get -s /pes1ug19cs592_seq0000000000
a sequential node
cZxid = 0x2
ctime = Sun Apr 03 23:36:44 IST 2022
mZxid = 0x2
mtime = Sun Apr 03 23:36:44 IST 2022
pZxid = 0x2
cversion = 0
dataVersion = 0
aclVersion = 0
ephemeralOwner = 0x0
dataLength = 17
numChildren = 0
```

Figure 4: Data and Metadata associated with the created sequential znode.

```
[zk: localhost:2181(CONNECTED) 5] ls /pes1ug19cs592_seq0000000000
[chawla, yashi]
[zk: localhost:2181(CONNECTED) 6]
```

Figure 5: Listing of all children nodes.

3   Naive Leader Election with Zookeeper CLI

```
[zk: localhost:2181(CONNECTED) 21] ls /pes1ug19cs592
[candidate0000000007, candidate0000000008, candidate0000000009]
[zk: localhost:2181(CONNECTED) 22]
```

Figure 6: Listing of all znodes.

```
[zk: localhost:2181(CONNECTED) 6] quit

WATCHER::

WatchedEvent state:Closed type:None path:null
2022-04-04 00:11:59,442 [myid:] - INFO  [main-EventThread:o.a.z.ClientCnxn$EventThread@568] - EventThread shut
 down for session: 0x100013c47170001
2022-04-04 00:11:59,442 [myid:] - INFO  [main:o.a.z.ZooKeeper@1232] - Session: 0x100013c47170001 closed
2022-04-04 00:11:59,447 [myid:] - ERROR [main:o.a.z.u.ServiceUtils@42] - Exiting JVM with code 0
pes1ug19cs592@LAPTOP-3NK0JKVJ:/opt/apache-zookeeper-3.8.0-bin/bin$
```

Figure 7: Watched Event

```
[zk: localhost:2181(CONNECTED) 5]
WATCHER::

WatchedEvent state:SyncConnected type:NodeDeleted path:/pes1ug19cs592/candidate0000000008
```

Figure 8: Watched Event