Assignment 4 - Introduction to Apache Zookeeper

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The following screenshots are to be submitted in a PDF file:

1a: Screenshot of Zookeeper Server having started.

```
(mahika kali) - [/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
```

2a: Screenshot of Listing of the created ZNodes

```
WatchedEvent state:SyncConnected type:None path:null
[zk: localhost:2181(CONNECTED) 0] create -s /pes1ug20cs243_seq "a sequential node"
Created /pes1ug20cs243_seq0000000000
[zk: localhost:2181(CONNECTED) 1] create -e /pes1ug20cs243_eph "an ephemeral node"
Created /pes1ug20cs243_eph

[zk: localhost:2181(CONNECTED) 3] ls /
[pes1ug20cs243_eph, pes1ug20cs243_seq0000000000, zookeeper]
[zk: localhost:2181(CONNECTED) 4]
```

2b: Screenshot of Listing of the deleted ephemeral node

```
WatchedEvent state:SyncConnected type:None path:null

[zk: localhost:2181(CONNECTED) 0] ls /

[pes1ug20cs243_seq000000000, zookeeper]

[zk: localhost:2181(CONNECTED) 1]
```

2c: Screenshot of Data and Metadata associated with the created sequential znode.

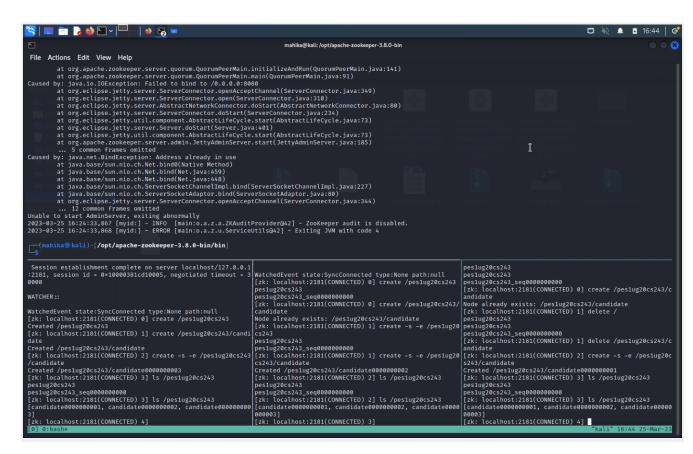
```
[zk: localhost:2181(CONNECTED) 13] set /pes1ug20cs243_seq0000000000 updated
[zk: localhost:2181(CONNECTED) 14] get -s /pes1ug20cs243_seq0000000000

updated
cZxid = 0×4
ctime = Fri Mar 24 06:24:34 EDT 2023
mZxid = 0×e
mtime = Fri Mar 24 10:29:02 EDT 2023
pZxid = 0×4
cversion = 0
dataVersion = 5
aclVersion = 0
ephemeralOwner = 0×0
dataLength = 7
numChildren = 0
[zk: localhost:2181(CONNECTED) 15]
```

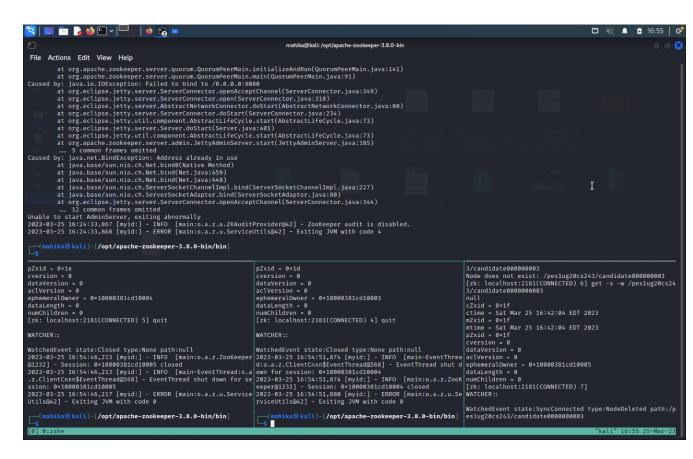
2d: Screenshot of Listing of all the children nodes

```
[zk: localhost:2181(CONNECTED) 18] create /pes1ug20cs243_seq000000000/mahika firstch ildnode
Created /pes1ug20cs243_seq0000000000/mahika
[zk: localhost:2181(CONNECTED) 19] create /pes1ug20cs243_seq0000000000/gupta secondch ildnode
Created /pes1ug20cs243_seq0000000000/gupta
[zk: localhost:2181(CONNECTED) 20] ls /pes1ug20cs243_seq0000000000
[gupta, mahika]
[zk: localhost:2181(CONNECTED) 21]
```

3a: Screenshot of each of the clients listing all the znodes



3b: Screenshot of the Watched Event and the Zookeeper Server logs.



3c: Screenshot of the old leader coming back and having a new sequence number.

